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THE WORK OF THE ARCHAEOLOGICAL
INSTITUTE OF AMERICA:

AN ADDRESS

BY CHARLES ELIOT NORTON

AT THE OPENING OF THE FIRST GENERAL MEETING OF THE
INSTITUTE, HELD AT NEW HAVEN, DECEMBER 27-29, 1899

THE first general meeting of the Archaeological Institute of America is a fitting celebration of the coming of age of the Institute. Twenty-one years will be complete next spring since its foundation. The hopes of its founders have not been disappointed, and this meeting is the assurance that what it has up to this time accomplished is but the promise of still better achievements.

During the middle half of the century which is now so near its close there had been numerous contributions, excellent in their kind, by American scholars to the study of the classics and of ancient history. In the record of that study in our colleges the names of Woolsey, Felton, Wheeler, Edwards, Sears, and others, will hold an honorable place. They kept the fires of classical learning alive; but the materials of the flame were supplied by the labor of foreign scholars. The chief, if not the only, American contributions of importance to the general stock of this learning — I mean of importance to students in other countries as well as in our own — were made by scholars from abroad who had found a home

in America. I need hardly recall to your memory the invaluable *Glossary of Later and Byzantine Greek*, compiled by that extraordinary and interesting man, Professor Sophocles, and the learned treatise on the *Age of Petronius Arbiter* by that fine scholar, Professor Charles Beck. This lack of original work was not the fault of our honored predecessors. It was the inevitable consequence of the conditions of learning and education in America. Our masters made good use of the means which they possessed, but the means were inadequate to supply the needs of scholarship. Our libraries were insufficiently stocked with the older books essential for thorough investigations in any department of learning, and not one of them possessed the means of securing a regular provision of those new books which might enable the student at home to keep up with the progress of learning from year to year in other lands. There was not a single museum containing a collection of casts from which even an imperfect knowledge of the historic development of ancient art, or the character even of its chief works, could be acquired.

These are familiar facts, but it is perhaps worth while, under the fortunate conditions of the present day, to recall that this poverty lasted well beyond the middle of the century, quite within the memory of the elder of us who are present here to-night, and who rejoice in the larger opportunities vouchsafed to the younger generation than those which they themselves enjoyed in their youth.

Moreover, America was having no share in the vast and stimulating increase of knowledge of early times that was resulting from the explorations of English, Italian, French, and German investigators, which were rapidly changing the face of the ancient world, and modifying all conceptions of its history.

Archaeology, in the sense of an exact science of antiquities or of the ancient works of man, was hardly recognized at the beginning of the century. Its distinctive aims and methods as a comprehensive study of the material remains of man's activity

in the early stages of his development, and its importance, not only in extending the knowledge of man and his works, but in enlarging the limits and increasing the exactitude of the historic record of human life, have been but gradually understood and acknowledged as the century has advanced. Reckoned by the period of man's unrecorded existence, written history dates only from yesterday, and its earliest and longest parts are full of gaps and still fuller of errors. But as geology has within a hundred years indefinitely extended our conceptions of the age of the earth on which we live, so archaeology, dealing with what Livy calls the *incorrupta rerum gestarum monumenta*, has indefinitely lengthened our view of human life, and thrown back the date of human activity into a past hardly dreamed of by our ancestors. "The night of time far surpasseth the day," said Sir Thomas Browne, and it is the task of archaeology to light up some parts of this long night with its torch, which burns ever with a clearer flame with each advancing step into the darkness. At the beginning of the century Egypt lay buried under her sands, Babylon and Nineveh were entombed in their sepulchres of clay, Greece was in great part a *terra incognita*, and Rome had hidden her ancient self under the accumulated rubbish of wanton destruction and gross neglect. And now, at the end of the century, Egypt stands revealed as never before; not even her own people at any time knew the sequence of her own history, or the range and succession of her mighty monuments, so well as we are acquainted with them. Babylon, "that great city," of which the angel of the Revelation declared it "shall be found no more at all," and Nineveh, "that rejoicing city which dwelt carelessly," but which had become "a place for beasts to lie down in," have ascended from the earth, like mighty ghosts rising from their tombs, and yielding up their secrets to us, the empires of Babylonia and Assyria once more take their due place in the pathetic story of the human race. The image of ancient Rome has been shaped out for us in the true grandeur of its long-concealed aspect, but, more than all, the beauty of the Greece of her own poets

and historians has been restored to us, while a still older, and hardly less marvellous Greece, of which they had only dim and confused traditions, has been revealed to us, indefinitely extending the luminous horizon of her past.

In all this work of such surpassing interest, of such unexpected revelations, America had, as I have said, no part. And yet here was a field in which she might labor on equal footing with others, and in which she might do her part in the common interest of learning. Here she might at least do something by original discovery to repay her exceeding debt to the scholars and investigators of the Old World.

It was with this end prominently in view that our Institute was founded, and its first undertaking on a considerable scale, the investigation of the remains of Assos during the years 1881-83, justified the intentions and fulfilled the hopes of its founders. For these ruins, which had never previously been carefully studied,—even those of the famous temple being but imperfectly described,—proved to be of extraordinary variety and novelty of interest, and their thorough exploration, conducted with admirable energy and intelligence by the young men in charge of the work, gradually disclosed all the more important civic structures of a Greek city in greater number and more varied character than had elsewhere been found. New aspects of Greek urban life were revealed and new applications of the principles of Greek architecture to public buildings of unusual and complicated construction. The large additions to knowledge of Greek antiquity made by this expedition have not as yet, owing to unfortunate circumstances, been fully published. A further publication of them is now in view, which, in addition to the partial reports already issued, will show that the investigations at Assos deserve a place among the notable achievements of archaeology during the century.

But from the outset it was recognized by our Institute that archaeology, however important it might be within its limits as the science of the material remains of man's activity in ancient times, was but a branch of the study of antiquity;

that it could not be properly pursued without corresponding pursuit of the other great branch of the study, that of the written monuments of the thought of men in past times; that archaeology and ancient languages and literature formed a single indivisible whole, and that for the attainment of the proper ends of either part all must be associated. The hope was therefore expressed in the first of the Annual Reports of the Executive Committee that a school might be established in Athens to afford to young American scholars similar advantages to those offered to their pupils by the French and German schools already existing there. At the annual meeting of the next year, 1881, a committee was appointed to devise a plan for the establishment at Athens of a school with the comprehensive designation of a School of Classical Studies, and a year later it was announced that not only had a plan been devised, but that successful measures had been adopted for carrying it out, and that in the autumn of 1882 the School would be opened in charge of one of the most eminent of American scholars. How well that School has done its work, in spite of poverty of means, and of the difficulties naturally inherent in the inception of an institution which was of necessity at first largely experimental, and how great is the debt which America already owes to it in the raising of the standard of American classical scholarship, are known to all of you.

But it is not to the Old World alone that the efforts of the Institute were early directed. The study of the aboriginal life of the American continent has been also its concern. This study is not of merely local interest. The larger general questions which are included in it are the same as those which concern the prehistoric periods of man's life in whatever regions of the world, while the actual conditions of the existing remnants of the tribes who occupied the continent in ancient times afford peculiar opportunities for ascertaining facts which illustrate, nay, which in a sort actually represent, the antiquity of mankind. In this field the work of the Institute has been also noteworthy. Contemporaneously with its

expedition to Assos, was its employment of one of the most competent and accomplished of American archaeologists in the study of the life of the Pueblo Indians in New Mexico, and for a time in the investigation of some of the most important monuments in Mexico. The reports of his work by Mr. Bandelier, published by the Institute, take their place among the most valuable contributions to the progress of archaeology in America.

Such were the beginnings of the Institute. It had scanty funds. It had often to live by faith; but its appeals for help to carry out its undertakings were met with response sufficient for the need. During later years it has maintained but a single expedition of its own,—a modest expedition to Crete, in charge of Professor Halbherr, which added a considerable body of not unimportant inscriptions to those already known, and shed much light on civilization and art in this island from the earliest times; the complete publication of the results of this expedition is looked for with interest by all students of the past. By giving up independent expeditions the Institute has been enabled to supply the means for work carried on by the School at Athens, to contribute to the support of the *American Journal of Archaeology*, to maintain scholarships at the School at Athens, and recently also scholarships at the School at Rome, established under its auspices, and with similar aims to those of the School at Athens. To these Schools of Classical Studies it hopes that a School of Biblical Studies, with its seat at Jerusalem, may soon be added.

The School at Athens, which was its creation, has proved its efficient instrument. No field offers a more precious harvest to the archaeologist than that which stretches immediately before the door of the School, inviting the labors of its students. The six volumes of the *Papers of the School*, published under the auspices of the Institute, present abundant evidence of the good work which these students accomplished. Even Athens itself is better known by their labors; several sites in Attica have been for the first time thoroughly ex-

plored by them, and many of the details of its ancient landscape and of the life with which it was animated have been recovered. One of the first students at the School, Dr. (now Professor) Sterrett, by his difficult and adventurous journeys in Asia Minor added much to knowledge of the local geography of regions rarely visited, and collected a large store of inscriptions, thus making a contribution of first-rate importance to one of the chief sources of information concerning ancient times.

I should be glad, did time admit, to enter into full details of the results thus achieved; their value is generally acknowledged by scholars. But I cannot dwell even upon the most important of the undertakings of the School, that of the investigation of the site of Argive Heraeum, conducted under charge of Dr. Waldstein during the years 1892-95. It is not extravagant, I believe, to claim for this work a place among the most important archaeological investigations of this generation, and to refer, for the substantiation of this claim, to the forthcoming publication by the Institute, of the results of the work by Dr. Waldstein and his young associates, in a form and on a scale worthy of their character. At the present time the School is engaged on the exploration of another of the most interesting sites in Greece, that of Corinth, and the discoveries already made open the way to an unexpectedly complete acquaintance with the chief structures and the general form of the ancient city. The work is arduous and costly; as of old,

Non cuivis homini contingit adire Corinthum,

— but let me finish the citation,

*Sedit qui timuit ne non succederet,
Hic est aut nusquam quod quaerimus,*

and we shall not desist till we have made easy the hitherto difficult entrance to the city, so that it no longer, like the tomb of Neleus within its walls, of which Pausanias speaks, shall remain unknown to all the world.

Such, in brief, is a part of what the Institute has accomplished. It is not altogether an unsatisfactory record of actual

performance, but the visible results are of far less import than what it has effected in ways which make no outward show, results which cannot be tabulated, and which are of a mental rather than of a material order.

First among these I reckon the influence which the Institute has exercised, especially through the establishment of the Schools at Athens and at Rome, and by the plan of their organization, in uniting the teachers of classical studies of the leading colleges and universities throughout the country, in definite undertakings of interest common to them all, thus quickening among them the sense of solidarity, and developing mutual sympathy and support. And this increased sentiment of union, this recognition of the bond created by common intellectual pursuits and aims, have been of all the more value because of the position of the humanities and especially of classical studies during recent years, exposed on the one hand to depreciation from men of great general intelligence and authority, but engrossed by pursuits which have narrowed their intellectual vision, and on the other to attack from those who would limit even the higher education mainly to the cultivation of the faculties required for the attainment of material ends. At such a period as this, the need is great that those who prize the humanities as the strongest forces in the never-ending contest against the degrading influences of the spirit of materialism, as the best means of development and discipline of the intelligence, as the source of the knowledge most useful for the invigoration and elevation of character, and most abundant in nutriment for the noblest intellectual qualities,—the need is great, I say, for those who hold the humanities in this esteem, and above all for those who recognize in classical studies, largely interpreted and rightly understood, the quintessence of the humanities, to unite in the assertion and maintenance of the supremacy of these studies among the general elements of the higher education. To this end the Institute and its Schools have contributed.

But more than this, it is not too much to claim for the Insti-

tute that it has afforded opportunity, of which advantage has been taken, to give to our scholars a hitherto unknown sense of independence, and at the same time of equal brotherhood with the scholars of other lands. For the first time they have been enabled to contribute by fresh discoveries and labors of their own to the common stock of learning; they have become partners in the actual increase of knowledge; they have begun to discharge, even if as yet in comparatively small amount, their debt to the old world of learning; they are no longer mere borrowers and dependants. The influence of these facts on the character of American classical scholarship is hardly to be overestimated. No one can turn the pages of the volumes of Papers of the School at Athens, or of the recent numbers of the *American Journal of Archaeology*, without recognizing in the productions of many of our younger scholars the evidence of this new spirit. In extent of general equipment and in thoroughness of special studies, in animation of interest and in carefulness of observation, in soundness of judgment and aptness of form, much of their work need not fear a comparison with that of their contemporaries in the Old World.

And in connection with this newly acquired independence, and auxiliary to it, account is to be taken of the gain in the manner and character of instruction in classical studies in our chief institutions of learning, which has resulted from that feature of the organization of our Schools in Athens and in Rome, which provides that each year a professor from one of the supporting universities or colleges should have leave of absence in order to take part in the instruction of the School, and in so doing to enjoy the opportunity to refresh himself at the very founts of learning, and to draw from them the waters which shall fertilize and vivify his own previous acquisitions and make his instruction such that, to borrow a phrase of the younger Pliny's, *spiritum et sanguinem et patriam recipiunt studia*.

Such then are some of the first fruits of the Institute.

The immense and astonishing discoveries of field archaeology during the century have probably left nothing to be revealed by

future investigations which will compare with them in novelty of interest, or so greatly extend the limits of knowledge. We have established the main lines of the story of Egypt and Mesopotamia; and as with a broken inscription of which the general meaning is clear, we have now only to hunt for the pieces by which the gaps in our knowledge may be filled up, and the limits of conjecture narrowed. There is but one Troy, but one Olympia, but one Delphi, but one Athens, Jerusalem, or Rome. Other places, indeed, famous in ancient times, long since buried, are waiting for the spade to deliver them from their graves. But there is no other place on the earth which so kindles the imagination and touches the heart as these, and none which is likely to disclose more precious treasures. But if no such splendid and far-reaching results are to be anticipated in the progress of archaeological research, still an immense and immensely interesting work remains to be done. Our ignorance concerning the past has been disclosed in proportion as it has been diminished by recent discoveries, and tracts of the earth's surface still remain untouched by the pick and the spade which are certain to render up monuments of unexpected interest, and to supply new knowledge of which we stand in need. Nothing could have been more unlikely than the discovery at Sidon of that extraordinary and magnificent group of sarcophagi which afford a series of untouched examples of admirable Greek sculpture, for a period of almost two hundred years when Greek sculpture was at its unapproachable best. Only the hem of the garment of Crete has been touched, and that hem has given us perhaps the most important inscription ever found in regard to ancient legal institutions, and has revealed the existence of two systems of writing, to account for which it seems likely that many of the notions hitherto held in regard to the diffusion of civilization on the coasts and islands of the Mediterranean will require revision and large modification.

Enough remains to be done to stimulate the ardor and demand the energies of many a generation of archaeologists. But with the application of scientific methods to excavation, and as the

spade has gradually become an instrument of precision, a pitfall has opened before the feet of the archaeologist. It has become obvious that for the determination of many questions of date, of relation, of culture, objects of no intrinsic value may be of more than trifling importance. And not merely the object, but the exact position in which it is found,—under what layers of soil, in connection with what other memorials, or if altogether solitary—is of equal concern. The rude pattern on a potsherd may have an interpretation which will illuminate the relations of widely separated races; the figure on a broken seal may illustrate the spread of a myth, or a coin upturned from the soil by chance may report a fact of which there is no other record. But there is risk in the temptation, which attends the study of every science, to exalt the discovery of trifling particulars into an end by itself, and to take pleasure in the mere accumulation of what Donne rightly calls

“Those unconcerning things, matters of fact,”

which, till ordered in their relation to some general truth, are nothing better than fragments in a heap of rubbish. There is risk, too, in the temptation to indulge in research concerning matters of mere idle curiosity,—such for example as the questions which Tiberius put with a touch of satire to the pedants of his court, “Who was the mother of Hecuba?” or “What song the Sirens sang?” Professor Phillimore in his recent Inaugural Address at Glasgow, has reminded us that we have to-day men who are of the same class as the fantastical scholar in Webster’s *Duchess of Malfi*, “who study to know how many knots was in Hercules’ club, of what color Achilles’ beard was, or whether Hector was not troubled with the toothache. He hath studied himself half blear-eyed to know the true symmetry of Caesar’s nose by a shoeing-horn; and this he did to gain the name of a speculative man.”

The true scholar is he who, avoiding useless specialism on the one hand, and loose inexactness on the other, never mistaking the roots of knowledge for its fruits, or straying from

the highway of learning into its by-paths, however attractively they may open before him, holds steadily to the main objects of all study, the acquisition of a fuller acquaintance with life in its higher ranges, of a juster appreciation of the ways and works of man, and of man's relation to that inconceivable universe, in the vast and mysterious order of which he finds himself an infinitesimally small object. And while there is no study which appeals to his higher intelligence that does not afford means for the enlargement and elevation of his mental view, and the invigoration of his moral nature, there is, perhaps, no other more directly serviceable to this end than that of archaeology, pursued in connection with its kindred sciences of ancient language, literature, and history. Man as he has been must always be of supreme interest to man as he is. For the man of to-day is not only the heir, but, in truth, the product of the man of the past. And according to his understanding of former generations is his understanding of his own generation and of himself as a member of it.

And in this view the most striking and important result of the great archaeological discoveries of the last hundred years is one which has not yet been generally recognized. The splendid labors which have recovered for us so much of the ancient history of Egypt and of Mesopotamia, which have thrown so much light upon the shores and islands of the Mediterranean, and imperfectly disclosed to us a Greece before the Greece of historical record, have revealed to us the first rudimentary stages of our own civilization. The slowly perfected art of transferring audible language into visible language assured the continuity of civilization; but for thousands of years after the first picture writing was practised, the progress of language addressed to the eye by means of hieroglyphs and other derived forms of writing was halting and slow till the supreme invention of the art of letters capable of syllabic combination. The limits of the powers of visible language were the limits also of the powers of thought, and neither in writing nor in any other form of expression did Egypt or Babylonia

or Assyria or any other land exhibit the free play of the higher intellectual faculties of man. They accumulated great heaps of knowledge, they attained to extraordinary skill in many of the arts, but they were unable to make any considerable addition to the treasury of the thought by which the intelligence of man is fructified and vitalized. The record of these nations is consequently the record of the course of life of the masses of men, not of the active intellectual life of individuals. The arts were indeed being practised, the commerce was being extended, the language was being formed, which, when the ripeness of time should come, were to afford the secure foundation of intellectual freedom.

But in arts and trade men moved and worked as a mass, in castes and orders, according to prescription, tradition, and canon, bound by rules, under whose rigid control there was little opportunity for the play of individual instincts and endeavors. These ages were the slow period of preparation and discipline, in which men were making ready the way for the independence of man.

“Ages of heroes fought and fell
That Homer in the end might tell;
O'er grovelling generations past
Uprose the Doric fane at last;
And countless hearts on countless years
Had wasted thoughts and hopes and fears,”

before the spirit of man, delivered from its bondage to ignorance of its own capacities, furnished with the means requisite for its own free exercise and animated with a novel sense of power, emerged, as it were, from long childhood and entered with all the ardor of youth upon the infinite, hitherto unexplored domains of the intelligence. All preceding ages had been leading up to this consummation, and the main interest of their history and of their monuments lies in their relation to it.

Egypt and all the East are of comparatively little concern except as they prepared the way for Greece. Lucretius was right in his *primum Græcius homo*, for the Greek was the first

man in whom the human spirit was full grown. With a not altogether infelicitous audacity an undergraduate in one of my classes wrote in answer to a question on an examination paper: "The Greek invented intelligence." It might almost seem so, for the Greek first exhibited intelligence untrammelled in its exercise, and universal in its application to human concerns. The paths it had previously followed had been few and narrow; the Greek widened them all, and opened new paths, along which the intelligence of succeeding generations has travelled, and in most of which the Greek still remains in advance, the leader and guide.

In the field of the arts no question of his supremacy is possible; but in the field of science, the limits of which have been extended so enormously by modern discovery and invention, the Greek, with his fund of knowledge, so minute, so imperfect as compared with ours, is yet the master of our masters. "Linnaeus and Cuvier have been my two gods" wrote Darwin near the end of his life, "but they were mere school-boys to old Aristotle;" and he had written a few years earlier: "I wish I had known of these views of Hippocrates before I had published, for they seem almost identical with mine — merely a change of terms, and an application of them to classes of facts necessarily unknown to the old philosopher. . . . Hippocrates has taken the wind out of my sails."

It is to the study of this preëminent race that the archaeology of the elder world leads up, and through Greece to Rome, her complement and associate in the story of civilization. They are the Rachel and Leah of history, one typifying and exemplifying the life of thought, of the ideal world, the other the life of action, of the practical world. Together they represent the full circle of human affairs and interests. To them all the previous life of man contributes, from them as from their head all the varied full currents of modern life derive.

The final end of archaeological study would then seem to be the increase of our knowledge of man in the early periods of his existence on earth, for the sake of learning the course

of the evolution of his intelligence, till at length it attained to its free exercise in Greece and Rome; and then through the investigation of Greek and Roman antiquities to gain fuller acquaintance with the genius of these commanding races, and a truer appreciation of their works, and thus a better understanding of the origins and nature of our own civilization. While increasing and defining our knowledge of human nature and life archaeology thus understood and pursued nurtures the imagination, quickens our sympathies with the generations which have preceded us, and renders us more sensible of our immeasurable obligations to them for all that makes life desirable; it provides us with standards by which to measure our own capacities and performances, and to estimate aright in the general scale of civilization the ideals and the actual achievements of our own day; it moderates our expectations of the rapid improvement of our race, and it compels us to acknowledge that while man may indeed be noble in reason and infinite in faculty he is yet the mere quintessence of dust; it becomes the most eloquent of preachers as to the vanity of material power and possessions and the transitoriness of glory, while it teaches that wisdom never fades away, but is the welfare of the world.

It is but a month ago that an important meeting was held in London to promote the establishment of a British School in Rome of similar character to our own. On the day after the meeting the *Times* published a vigorous leader in support of the undertaking, and said at its close: "We would carry the proposition even further, and suggest as an ideal to be aimed at, the ultimate establishment of an archaeological institute which should take all civilized antiquity for its province. Nothing short of this is worthy of the place archaeology is entitled to hold in the hierarchy of the sciences which deal with the history of human activity." We may congratulate ourselves that this ideal has already been attained by us in the establishment of the Institute as members of which we are assembled to-night.

Our Institute with its Schools is already one of the most important institutions of learning in the country. It needs not only the sustained interest of scholars, but the support of all enlightened men who desire to promote the higher education in America. It needs a larger membership, and larger contributions of money to enable it to perform its full work, and it calls upon us all to do our best to increase its means of usefulness.

PROGRESS OF AMERICAN ARCHAEOLOGY DURING THE PAST TEN YEARS

IN the Tenth Annual Report of the Council of the Institute (1889), at their request, I endeavored to give a "brief survey of the progress of archaeological studies in this country in the decade that had elapsed since the Society was established." I have been asked to continue this survey and to bring it down to the present time.

In my former sketch I naturally began with a statement of what has been accomplished by our own Society, especially through its publication, in 1881, of Mr. Bandelier's *Report on the Ruins of Pecos*, accompanied by a *Historical Introduction to Studies among the Sedentary Indians of New Mexico*; and in 1884, of his *Report upon an Archaeological Tour in Mexico in 1881*. I then stated that "two works by Mr. Bandelier, which are essential to a complete understanding of what has been already accomplished for the scientific investigation of American antiquities, still remain for the Society to publish. The first is the concluding portion of his *Historical Introduction*. This comprises an account of the narratives of the different expeditions into that region, up to the beginning of the seventeenth century, with a discussion of the routes followed, and an attempt to identify the localities visited, especially by Espejo and Oñate. It will also be necessary to print a complete report of his final explorations in Northern Mexico, . . . in the valley of Sonora, . . . and of the remarkable ruins of the Casas Grandes, near Janos, in the State of Chihuahua. Of these there is no existing adequate account, and Mr. Bandelier's

complete plans, with their explanation, not only of the house architecture, but of the military construction, and of the system of irrigation, and of the trails of the tribes, ought not to be lost."

Of this concluding portion of the *Historical Introduction*, Mr. Bandelier has completed a part, which was published in 1890 at the joint expense of the Institute and of Mrs. Mary Hemenway. It makes Volume V of the *American Series* of our publications, and is entitled, *Contributions to the History of the Southwestern Portion of the United States*. The remainder of this *Historical Introduction* has never been written. Mr. Bandelier's *Final Report of Investigations among the Indians of the Southwestern United States, carried on mainly in the years from 1880 to 1885*, has been published by the Institute, making Volumes III and IV of its *American Series*; Part I in 1890, and Part II in 1892. On the merits of these important publications it is unnecessary for me to dwell, as the members of the Institute, doubtless, fully appreciate them.

The late Mrs. Mary Hemenway, who, among the many objects of her generosity, had become greatly interested in the subject of American antiquities, undertook to carry on at her own expense systematic explorations in the Salado and Gila Valleys, in Arizona. The Hemenway Southwestern Archaeological Expedition was placed, in 1887, under the charge of Mr. F. H. Cushing,¹ who had lived some time among the Zuñis and had been adopted into that tribe. He associated with himself several scientific assistants, among them Mr. Bandelier. After several years' labor, resulting in the collection of a vast amount of material, which was temporarily housed in Salem, Mass., the expedition was finally abandoned on account of the failure of Mr. Cushing's health. This has prevented his giving to the world any final and complete account of his work. Dr. J. W. Fewkes was placed in charge of the archaeological and ethnological material collected, and continued to carry on the study of the Sedentary Indians of Arizona, passing the summers of 1891-92

¹ We regret to have to record the death of Mr. Cushing, on April 10, as this paper is passing through the press.

at the Hopi or Moqui pueblos (the ancient province of Tusayan), and making extensive explorations there. In 1892, Dr. Fewkes took to the Columbian Historical Exposition, at Madrid, held in commemoration of the Fourth Centenary of the discovery of America, a collection of objects, both ancient and modern, procured from this tribe as the representative of the most primitive of the Sedentary Indians of the Southwestern United States. A catalogue of the Hemenway Exhibit was published by our government as a portion of the official report of the Madrid Commission upon the various American exhibits. A part of this was a collection of copies of documents relating to the history of Arizona and New Mexico, made by Mr. Bandelier. As the fruits of the Hemenway Expedition, Dr. Fewkes has published four volumes of *A Journal of American Ethnology and Archaeology*, mainly devoted to an account of religious ceremonies of the Moqui Indians. The third volume, however, published in 1890, contained *An Outline of the Documentary History of the Zuñi Tribe*, by Mr. Bandelier. After Mrs. Hemenway's death in 1894, the trustees under her will, being authorized to make such disposition of her various collections as would best subserve the study of history and archaeology, intrusted the whole of her extensive archaeological collections to the Peabody Museum, at Cambridge, with the express stipulation that the installation and classification of the objects should be under the immediate direction of Dr. Fewkes. The gift was accepted by the trustees of the Museum, and Dr. Fewkes arranged the part that relates to the Moqui so as "to show in monographic form the character of the past and present of the Tusayan, or Moqui Indians, as far as this is possible by objects illustrating their arts and practices." The collections include also the archaeological material obtained in the early years of the expedition from the Salado Valley and from the Zuñi pueblos, as well as the documents copied by Bandelier. Besides his *Journal*, Dr. Fewkes has contributed to successive volumes of the *Journal of the American Folk-Lore Society* and to the *American Anthropologist*, many interesting studies of the religious ceremonies of

the Pueblos, as the result of his connection with the Hemenway Expedition. In 1895 he entered the service of the Smithsonian Institution, at Washington, and there have been published in the Smithsonian Reports for that year, 1896 and 1897, preliminary accounts of the different explorations undertaken by him in this service. The Fifteenth and Sixteenth Annual Reports of the Bureau of Ethnology also contain important papers by him upon Tusayan ceremonials; while the forthcoming Seventeenth Report will contain the full account of his work in 1895.

A World's Columbian Exposition was held at Chicago, in 1893, and one department was specially devoted to ethnology, archaeology, and kindred subjects, which was placed in charge of Professor F. W. Putnam, curator of the Peabody Museum. at Cambridge. As early as 1891 the work of gathering material for exhibition was begun, and eventually as many as one hundred persons were employed in North, Central, and South America, in making collections under the immediate direction of Professor Putnam and his chief assistant, Dr. Franz Boas. The results were most valuable for the study of both the ethnology and the antiquities of America. Collections from Greenland and Labrador, from Alaska and the Columbia River, Vancouver, and Canada; from nearly all the Indian tribes in the United States; from the West Indies and Mexico; from Yucatan and Honduras; from Ecuador, Peru, Bolivia, and even down to Patagonia, illustrated the ethnology of this continent. Important archaeological work was undertaken; in Maine, by Mr. C. C. Willoughby in exploring some burial-places of very great antiquity; in Connecticut, in connection with a prehistoric soapstone quarry; at Trenton, in the Delaware Valley, where relics of the Palaeolithic man were claimed to have been discovered; in Ohio, at several of the great earth-works and from many mounds and burial-places; in Yucatan and Honduras, where plaster casts of the most important sculptured stones were taken; and at Ancon, in Peru, from which site Dr. G. A. Dorsey brought back a reproduction of an ancient burial-place. These and other explorations furnished such an exhibit of the

ethnology and antiquities of our country, as has never been equalled. It is greatly to be regretted that no official report of this exhibition has been published.

During the progress of the Exposition a series of congresses was held at Chicago, among which was one of Anthropology. This was largely attended, and many valuable papers were read, which were afterward published in a volume entitled *Memoirs of the International Congress of Anthropology*, 1894.

Of the objects procured for this Exposition those collections made by the Peabody Museum came to Cambridge, but the larger part formed the foundation for the Anthropological Department of the Field Columbian Museum, at Chicago, which was the direct result of the World's Fair. This department was at first placed under the charge of Dr. F. Boas as curator, and after him Mr. William H. Holmes, who left the Bureau of Ethnology for this position. In December, 1894, on the invitation of Mr. Armour, Mr. Holmes accompanied a party of scientific investigators in an expedition to Mexico. The results of his explorations there were published in December, 1895, and in February, 1897, as the first of the Anthropological Series of publications of the Museum, under the title *Part I. Monuments of Yucatan; Part II. Monuments of Chiapas, Oaxaca, and the Valley of Mexico*. Dr. George A. Dorsey, who had been for several years assistant in the Peabody Museum, at Cambridge, was made assistant curator in 1896, and published, in August, 1897, *Observations on a Collection of Papuan Crania*, with notes by Mr. Holmes. When Mr. Holmes returned to Washington, in 1898, to take charge of the Anthropological Department of the National Museum, Dr. Dorsey became curator. Since then he has published *A Bibliography of the Anthropology of Peru*, 1898. The last publication of the Field Columbian Museum was in July, 1898; *Ruins of Xkichmook, Yucatan*, by Edward H. Thompson, giving the results of his observations extending over a period of seven years.

Early in 1894 Professor F. W. Putnam, in addition to his duties at Cambridge, assumed the charge of the Department of

Anthropology in the American Museum of Natural History, at New York, and since then great progress has been made there in this branch. Large collections of archaeological material have been acquired by gift and purchase, which are now exceedingly well displayed through the enlargement of the building, and several explorations have been undertaken. In 1896 the Trustees of the Museum assumed the expense of continuing investigations in Peru by Mr. Bandelier, which had been carried on for two years at the charge of Mr. Henry Villard. Extensive collections from the coast town of Arica and from the ruins of Tiahuanaco, the most important site after Cuzco, have been already received; among them are a number of trephined skulls. Later, Mr. Bandelier explored the islands in Lake Titicaca and sites in Bolivia; but as yet none of the results of these investigations have been given to the world, although the large collections he has made are arranged in the Museum. Since 1894 Dr. C. Lumholtz has been carrying on, for four years, investigations among the tribes of the Sierra Madre Mountains, in central and southern Mexico; and large collections, principally ethnological, have reached the Museum, adding greatly to our knowledge of their history.

In 1898 a joint expedition to eastern Mexico, by Dr. Lumholtz and Dr. A. Hrdlicka, resulted in much ethnological and archaeological work of importance which is soon to be published by the Museum.

Messrs. B. T. B. and Fred E. Hyde, Jr., of New York, have presented to the Museum their extensive collection from the cliff-houses and burial-caves of Utah, New Mexico, and Colorado; and for the past three years they have been carrying on, at their own cost, explorations among the ancient pueblos of New Mexico, especially at the Pueblo Bonito, in the Chaco Cañon, from which a large amount of valuable material has been secured. These investigations are going on at the present time under the direction of Professor Putnam, with Mr. G. H. Pepper and Mr. Richard Wetherill chief assistants in the field.

In 1897-98 Mr. M. H. Saville, assistant curator of the

Department of Anthropology, carried on extended researches in Mexico, especially at Xoxo and Monte Alban, in Oaxaca, and at the celebrated ruins of Mitla. In the *Bulletin of the Museum*, vol. VIII, he has published an article on *The Temple of Tepotztlan, Mexico*, excavated by Mr. Rodriguez, and in vol. IX, one on *An Ancient Figure of Terra Cotta from the Valley of Mexico*. This is a unique object of life size, found in a cave near the city of Texcoco, and is exceedingly curious, as representing an ancient Mexican war-chief dressed in armor of quilted cotton. Volume X of the *Bulletin* contains an article by Doctors Lumholtz and Hrdlicka on *Marked Human Bones from a Prehistoric Tarasco Indian Burial-place in the State of Michoacan, Mexico*.

For four years Mr. Volk has been carrying on investigations at Trenton, N.J., under Professor Putnam's direction, and under the patronage of the Duke of Loubat and of Dr. F. E. Hyde, to settle, if possible, the question of the discovery there of relics of Palaeolithic man. Other successful explorations have been conducted in Ohio and Kentucky, in several Indian sites in the valley of the Hudson, and in the immediate vicinity of the city of New York; and the Museum has coöperated with the Peabody Museum, at Cambridge, in conducting explorations in Honduras.

But by far the most important anthropological investigation that has ever been undertaken by the American Museum was made possible by the generosity of its President, Mr. Morris K. Jesup. He has taken special interest in the question of the origin of the American Indians and the theory that this continent was peopled by migration from Asia, and, believing that light would be shed upon this subject by a systematic study of the tribes inhabiting the coasts of the North Pacific Ocean, he has assumed the whole expense of such researches, to be prosecuted during a period of several years beginning in 1897. The field work of the Jesup Expedition, in 1897, was confined to the coast of British Columbia, and was carried on by Dr. F. Boas, assistant curator in charge of the Ethnological Division, who has the immediate direction of the Jesup Expedition, and by Dr. L. Farrand and by

Mr. Harlan I. Smith. It was directed mainly to the exploration of the prehistoric remains of that region and to the study of the Bella Coola and northern Kuakiutl tribes. A summary account of the results of the season's work was given in *Science*, October 8, 1897. The following year the work was taken up on a more extended scale, and Mr. Gerard Fowke and Mr. R. B. Dixon, with several resident investigators, were added to the working force. Parties were in the field on the coast of the State of Washington, in the southern interior of British Columbia, on the Amoor River in Siberia; and archaeological and ethnological work has been prosecuted on both continents. Valuable collections have been received from the tribes of Thompson River, and from those of the northern part of Vancouver Island and of the central parts of the coast of British Columbia. Archaeological investigations were carried on by Mr. Fowke on the Amoor River, and ethnological by Dr. B. Laufer in the island of Saghalien. Another party is about starting for two years' work in northern Siberia. Accounts of the work done in 1898 can be found in the numbers of *Science* for April 14 and May 26, 1899. During the past summer the work has been continued, but no statement of what has been accomplished has yet appeared. The Museum has begun the publication of the scientific results of the Jesup Expedition in the shape of Memoirs in quarto form. So far there have appeared *Facial Paintings of the Indians of Northern British Columbia* and *Mythology of the Bella Coola Indians* by Franz Boas, 1898, and *Archaeology of Lytton, British Columbia*, by Harlan I. Smith, 1899. Mr. Boas has also published, in vol. IX of the *Bulletin of the Museum*, an article on *The Decorative Art of the Indians of the North Pacific Coast*.

But while Professor Putnam has been actively engaged in the management of the Department of Anthropology in the American Museum, for the past five years, his work, originally undertaken at Cambridge in the interests of American archaeology, in the Peabody Museum, has been vigorously pursued, as is abundantly manifested by his reports upon the doings of that institution for the past ten years. I will only attempt to enumerate

here some of the more important of the services rendered by the Peabody Museum in the field of American antiquities during that period. The first was the raising of a large sum of money by contributions to purchase and preserve as a public park the Great Serpent Mound, in Ohio. A complete model to scale of this remarkable earthwork has been constructed and placed on exhibition. This was followed by explorations of the gravel banks of the Little Miami River, and the discovery in them of ancient hearths. Then renewed investigations were made of the Turner Group of mounds in that same region, and continued until that important work had been thoroughly explored. About twenty miles above the Turner Group, at Foster's, a remarkable circumvallation over half a mile in extent was investigated. At the northern portion of this singular work is "a carefully laid wall of flat stones along the outer side several feet in height; behind were loose stones, both large and small, making nearly half the structure, and behind and over these stones was a mass of clay burnt to all degrees of hardness, from that only slightly burnt to great masses of slag, showing that the clay had been subjected to a very great heat, in places forming a vitreous surface over the slag, which resembled that from a blast furnace." This singular structure seems to resemble in some respects the remarkable earthwork in Jefferson County, Wisconsin, which goes by the name of Aztlan. This is described by Mr. James D. Butler, in a letter to Schliemann (*Troja*, p. 180), as "a brick or terracotta crust baked *in situ*." In other particulars it seems more like the "vitrified forts," of which numerous examples are known in Scotland, the Orkneys, France, and Germany.

During the various explorations carried on by the Peabody Museum, advantage was taken of the opportunity to give practical training in scientific methods of excavation to young men pursuing their studies at the Museum. This has been the continuous policy of the institution, and it has resulted in furnishing *five* men, trained there, to fill places of responsibility elsewhere as professional anthropologists.

After certain explorations had been carried on for a couple of years in Yucatan, the most important work ever undertaken under the auspices of the Peabody Museum was the Honduras Expedition. This was started in 1891, under a special grant from the government of that country of the exclusive right of exploration for the term of ten years, with the privilege of retaining for the Museum one half of the objects secured from ancient sites and burial-places. This work has been going on steadily ever since, although unfortunately interrupted for a while by the death from fever (February 18, 1893), of the head of the expedition, Mr. J. G. Owens, to the great loss of American archaeology. After his death Mr. George B. Gordon took charge of the work, and has continued to be the executive head of the expedition ever since. The expenses of all these explorations have been quite large, amounting to over \$32,000 four years ago and much increased since then; and at first they were supplied by generous contributors in New England, of whom Messrs. Charles P. Bowditch and Stephen Salisbury were the largest givers. In fact the success of the exploration is greatly due to Mr. Bowditch's energetic support in various ways besides the gift of money. During one year Messrs. Jesup, Whitney, and Loubat made a contribution on behalf of the American Museum, of New York, which received its portion of the objects collected. Moreover, Mr. Salisbury has again secured the valuable services of Mr. Edward H. Thompson for the benefit of the Peabody Museum. He had for several years been working for the Field Columbian Museum, and has a wider knowledge than any other explorer of the ruins of the prehistoric cities of Yucatan.

The practical work of the Honduras Expedition began at Copan in the dry season of 1891-92 (December to May), and many curious and interesting objects were sent to the Museum as its result; among them were human teeth having a small piece of jadeite inserted in a hole drilled in their front surface. Plans were made of the principal ruins, photographs taken, and paper moulds prepared of important sculptures. Numer-

ous original carved stones were brought away with the greatest labor and difficulty, as they had to be transported on muleback many miles. Moulds were also made of the huge carved monoliths at the ruins of Quirigua, in Guatemala, from which casts have been taken and distributed. The sculptures and carved inscriptions secured in this way have excited the wonder and admiration of all beholders. During the season of 1893-94 the exploration was retarded owing to Mr. Owens' death; but in 1894-95 one of the great pyramids at Copan was investigated by Mr. G. B. Gordon, as was also a remarkable stairway, 24 feet wide and over 100 feet high, having the front of each step covered with carvings and sculptures. This is regarded as probably the longest and most important of the inscriptions in Central America. In January, 1896, the examination of ancient deposits on the banks of the Uloa River, and of several caverns, brought to light the work of other peoples than those who built the great structures of Copan. Work was interrupted at Copan in the season of 1896-97, pending the settlement of rights of exploration with the new government of Honduras, but was continued on the Uloa River. Relics obtained from ancient sites along the river show a mingling of the arts of Nicaragua and of Southern Mexico with those of Guatemala and Honduras. Mr. Gordon returned in September, 1897, and no further work has been yet reported, as his time has been devoted to preparing reports of the previous explorations. Meanwhile Mr. Bowditch has secured the services of Mr. T. Maler to visit the Lacandon country with the hope of possibly obtaining some clue to the deciphering of the Maya writings through knowledge of their meaning still lingering among the unsubdued tribes of Central America.

In the meantime the Peabody Museum has begun the publication of a series of illustrated reports, in quarto form, of the researches in Central America and Yucatan: No. 1, *Prehistoric ruins of Copan, Honduras*, by George B. Gordon, 1896; No. 2, *Caves of Loltum*, by Edward H. Thompson, 1897; No. 3, *Choltunes of Labna*, by the same; Nos. 4 and 5, *Researches in the Uloa Valley, Honduras, and Caverns of Copan, Honduras*,

by George B. Gordon, 1898. Besides these publications it has issued a series of archaeological and ethnological papers in octavo form: Vol. I, No. 1, *Standard, or Head-dress, an Historical Essay on a Relic of Ancient Mexico*, by Zelia Nuttall, 1888; No. 2, *The Karankawa Indians, the Coast People of Texas*, by Albert S. Gatschet, 1891; No. 3, *The Atlatl, or Spear-thrower of the Ancient Mexicans*, by Zelia Nuttall, 1891; No. 4, *Report upon Pile-structures in Naaman's Creek, near Claymont, Delaware*, by Hilborne T. Cresson, 1892; No. 5, *A Study of Omaha Music*, by Alice C. Fletcher, 1893; No. 6, *Prehistoric Burial-places in Maine*, by C. C. Willoughby, 1898.

In 1896 the University of Pennsylvania, with the coöperation of the Bureau of Ethnology, at Washington, organized the Pepper-Hearst Archaeological Expedition to send Mr. F. H. Cushing to explore the shell mounds of the Florida coast, between Tampa and Cape Sable. Much aboriginal handiwork was secured, especially at Key Marcos, on the islands, and in the lagoons adjacent. The habitations were found to have been protected by huge banks, constructed of large conch-shells, and were in part built upon piles. In some instances the kitchen refuse had accumulated in the water underneath so as to form mounds, which were afterwards built upon. Numerous interesting objects were secured, principally from the muck which covered the inner courts of the chief structures explored. These are to be divided between the coöperating institutions, which will also publish jointly the final report upon the work accomplished. In the meantime a preliminary report has been made by Mr. Cushing at a meeting of the American Philosophical Society (November 6, 1896), which was published in its *Proceedings*, December, 1896.

The University of Pennsylvania, in 1889, established a Museum of American Archaeology, of which Dr. C. C. Abbott was appointed curator. The following year he issued a report, but resigned the position not long after; and Mr. Henry C. Mercer was made curator of a Department of American and Prehistoric Archaeology. Mr. Mercer had previously done

valuable archaeological work in various directions; in 1893, in the Trenton glacial gravels, and for three years subsequent in cave explorations in the eastern United States, as well as of the caves in Yucatan. Of these he has rendered annual reports, which have been 'expanded in several interesting articles in the university publications. No relics of Palaeolithic man have been found by him in the caves, but he reports that "bones of the fossil *Megalonyx*, still retaining their cartilage, were exhumed from a dry deposit . . . mingled with fragments of reeds, used as torches by the Indians, in a gallery nine hundred feet from the entrance." This seems rather to reduce the age of the fossil animals than to extend that of man.

In 1897 the Free Museum of Science and Art, Department of Archaeology and Palaeontology, University of Pennsylvania, began the issue of a semiannual bulletin "to contain a *résumé* of the collections made by the Museum in its several sections, notices of publications referring to the work of the Museum, and brief papers by its officers of general scientific interest." Six numbers of this bulletin have already appeared.

The University of Pennsylvania and the science of American linguistics have equally suffered a great loss in the death of Dr. Daniel G. Brinton, July 31, 1899. Since the death of Dr. J. Hammond Trumbull, he had held the first place among the students of the native American languages. To the seven volumes of the *Library of Aboriginal American Literature*, of which I spoke in my former article, he had added an eighth, *Rig-Veda Americanus, Sacred Songs of the Ancient Mexicans*, 1890. In the same year he collected his earlier writings in a volume entitled *Essays of an Americanist*. This was followed, in 1891, by *The American Race*, the first attempt at a systematic classification of the whole American race on the basis of language. Then came *Studies in South American Languages*, 1892; *Native Calendars of Central America and Mexico*, 1893; *A Primer of Mayan Hieroglyphics*, 1895; and *Religions of Primitive Peoples*, 1897. Numerous shorter articles were contributed to the *Proceedings* of the American Philosophical Society, and to the *American Anthro-*

pologist, of which he was one of the original editors. For several years past, as one of the editors of *Science*, he has been a regular contributor to that journal of 'Current Notes on Anthropology.' In 1898 he printed for private distribution *A Record of Study in Aboriginal American Literature*, containing a complete bibliography of his writings.

For some years Mr. Clarence B. Moore, of Philadelphia, has been the most prominent and energetic private investigator of American antiquities. He began his work by exploring numerous shell heaps and burial mounds in Florida. As he was in the habit of passing his winters in that state, and had his own steam house-boat, it was in his power to set a large number of men at work, which has been throughout accomplished in the most scientific manner, following the methods of research established by Professor Putnam, of the Peabody Museum, in which many specimens of his collecting are to be seen. His large private collection is arranged in the Philadelphia Academy of Natural Sciences. Some account of his investigations was given in papers published in the *American Naturalist*, 1892-94. Fuller reports were communicated to the Academy of Natural Sciences, of Philadelphia, which were published in quarto form, in their *Journal*. He has reprinted these in sumptuous style, with every possible luxury of illustration, and has distributed them widely among students of American antiquities. The first was entitled *Certain Sand Mounds of the St. John's River, Florida*, parts I, II, 1894. This was followed by *Certain River Mounds of Duval County, Florida*; *Two Sand Mounds on Murphy's Island, Florida*; *Certain Sand Mounds of the Ocklawaha River, Florida*, 1895; and by *Additional Mounds of Duval and Clay Counties, Florida*; *Mound Investigation on the East Coast of Florida*; *Certain Florida Coast Mounds North of the St. Johns' River*, 1896. Having exhausted the Florida mounds, he turned his attention to those on the coast farther north, of which he gave the results in *Certain Aboriginal Mounds of the Georgia Coast*, 1897. Continuing this work, he published *Certain Aboriginal Mounds of the Coast of South Carolina*; of the

Savannah River; and of the Altamaha River, 1898. His last work is *Certain Aboriginal Remains of the Alabama River*, 1899. Among his many finds were numerous large burial-jars, containing human crania and other portions of the skeleton, stamped with a singular and complicated ornamentation. There were also two breastplates, made of thin sheets of hammered native copper, over a foot square, with striking designs in *repoussé* work. The question of the original source of this copper is most carefully studied.

In 1896 the legislature of the state of New York appropriated \$5000, "to be used by the regents of the University for increasing the state collection illustrating New York aboriginal life, and for preserving such facts as might seem to them of most value." Besides securing several valuable collections, it was thought "advisable to issue some bulletins of a popular nature illustrating the antiquities of New York, especially the implements and monuments of the aborigines." Rev. Dr. William M. Beauchamp, of Baldwinsville, who has been engaged in such studies for a quarter of a century, and who has accumulated a vast amount of valuable illustrative material, was made the editor. There have already been issued three numbers of the *Bulletin*, which are supplied for twenty-five cents each, and are sufficiently well illustrated for their purpose: *Aboriginal Chipped Stone Implements of New York; Polished Stone Articles used by the New York Aborigines before and during European Occupation; Earthen Ware of the New York Aborigines*.

Hon. Jacob V. Brower, of St. Paul, Minn., whose geographical studies upon *The Mississippi River and its Source*, and *The Missouri River and its Utmost Source*, have proved of very great importance, began to turn his attention to the question of the presence of man in those regions in prehistoric times. The first results of his investigations were given in his *Missouri River*. In a second edition, in 1897, he added an archaeological appendix, giving further studies at the headwaters of the Missouri, of certain mounds at the headwaters

of the Mississippi, and at a spot which he believes, upon archaeological considerations, to be the site of Quivira, the final point reached by Coronado in his famous expedition in 1540-42. At this stage in his investigations all his papers, maps, plans, and archaeological collections were destroyed by fire; but, undeterred by this calamity, he has continued his work, and has commenced the publication of *Memoirs of Explorations in the Basin of the Mississippi*, in quarto form and handsomely illustrated. Two have already appeared: *Quivira*, in 1898; and *Harahey*, in 1899. The latter contains a valuable paper by Mr. F. W. Hodge, of the Bureau of Ethnology, at Washington, on *Coronado's March to Quivira*, the latest and one of the most exhaustive of the many studies that have been made of that interesting question. To this Mr. Brower has appended a concise bibliography of the subject.

The American Antiquarian was established in 1878 by Rev. Stephen D. Peet, and has had a prosperous career as a bimonthly journal, published in Chicago, to the present time. Its twenty-one volumes have contained numerous valuable contributions from various sources and concerning different countries as well as our own. Those by the editor he has collected in four volumes, under the title of *Prehistoric America*: No. 1, *The Mound-Builders and their Relics*; No. 2, *Animal Effigies and Emblematic Mounds*; No. 3, *Cliff-Dwellings and Pueblos*; and No. 4, *Myths and Symbols, or Aboriginal Religions*.

Ten years later *The American Anthropologist* was founded, in 1888, as the organ of the Anthropological Society of Washington, and for eight years was published quarterly. It was then changed to a monthly, and appeared in this form for three years. In January, 1899, a new series was started, with an enlarged board of editors, to appear quarterly and with a larger page. Among the present editors are officers of all the archaeological museums of our country. It is by far the most important periodical in America devoted to the science of anthropology; and its articles are fully up to the standard of the best European journals of a similar character. An acquaintance

with its contents is indispensable to the student of American antiquities.

Several ineffectual attempts have been made to establish an archaeological monthly of a popular character. In 1893 *The Archaeologist* was started and appeared for three years, when it was merged in *Popular Science*, a successful New York monthly. In 1897 the Landon Company, of Columbus, Ohio, began the publication of *The Antiquarian*, but changed the name the following year to *The American Archaeologist*. After a year's struggle it, too, was absorbed by *Popular Science*. Evidently there is not a sufficient demand to support such a journal, although many valuable articles had appeared during the five years of effort.

The only attempt at a general survey of the whole field of North American antiquities that has recently been made is a little work by Professor Cyrus Thomas, of the Bureau of Ethnology, entitled *Introduction to the Study of North American Archaeology*, 1898. The objects studied are arranged in three great groups: monuments, relics, and paleographic remains. These are distributed in three culture areas: the Arctic, the Atlantic, and the Pacific. The author denies the existence of Palaeolithic man in North America; maintains the theory of the Asiatic origin of the American tribes; and regards the so-called *Mound-Builders* as in no wise different from the other native tribes found by the European discoverers dwelling on this continent.

Mr. Warren K. Moorehead has published a little volume, giving the result of his observations during several years of work in the exploration of ancient fortifications, burial-places, and village sites, in Ohio. The title is *Primitive Man in Ohio*, and it is a fully illustrated and comprehensive statement of the facts observed in the course of his work, and of the deductions he has drawn from them. He has undertaken the publication of a series of *Bulletins* upon special subjects, of which one on *The Bird-stone Ceremonial* has just appeared.

Some valuable and costly works upon American antiquities

by European writers have appeared during the past ten years. Mr. Alfred P. Maudslay has published in London, in the *Biologia Centrali-Americana*, parts I-XI (1889-99), devoted to *Archaeology*. These embrace his valuable studies of the ruined cities of Central America, Copan, Palenque, and Chichen Itza, where he has done a vast amount of work in exploration, surveying, and taking of moulds. It is the greatest contribution to the study of ancient Maya culture that has been made since the time of Lord Kingsborough. Mr. Maudslay has generously rendered great assistance to the Honduras Expedition, of the Peabody Museum.

In 1895, Dr. Edward Seler, the head of the American department of the Ethnological Museum at Berlin, published a large folio volume with the title of *Wand-malereien von Mitla*. It contained thirteen photographs, with descriptive text, of certain paintings *in fresco* upon the walls of an inside court, belonging to one of the blocks of the well-known ancient ruined buildings at Mitla, about thirty miles southeast of Oaxaca. That particular block has been converted into a church, and the inside court has been made into a stable for the use of the curate. At the time Mr. Bandelier visited the ruins, although he was informed of the existence of the paintings, he was unable to get access to them on account of the absence of the curate (Bandelier's *Archaeological Tour in Mexico in 1881*, p. 281). Dr. Seler's discovery was accidental, and it was with great difficulty that he was able, with his wife's help, to make the copies of the frescoes given in the volume. His conclusion as to their significance is that they contain the story of Quetzalcoatl, the culture-hero of the Toltecs.

Various articles by Dr. Seler, Dr. E. Forstemann, and Dr. Paul Schellhas, upon the Aztec and Maya picture-writings, have probably done more to elucidate their significance than the writings of any other students of the subject.

The few remaining manuscripts of this character are being fast reproduced in colors for the use of students. In 1892, the American Philosophical Society published the *Codex Poinsett*,

relating to the collection of taxes in ancient Mexico ; the following year the Royal Library, of Berlin, issued fac-similes of sixteen fragments of Mexican manuscripts, brought back by Humboldt, several of which are ancient ; and a third, of Miste-can origin, was published in Geneva, by M. de Saussure, supposed to contain the life of a great chief. In 1899, the *Codex Borbonicus* was published in Paris, by M. E. Leroux. But the Duke of Loubat has been the most munificent promoter of these important aids to research. In 1896, he published in facsimile the *Codex Vaticanus*, a Mexican manuscript in the Vatican Library ; in 1898, another Mexican codex in the Vatican Library, known as the *Codex Borgianus* ; and in 1899, the *Codex Telleriano-Remensis* and *Codex Bologna*, also Mexican.

The eighth *Congrès international des Américanistes* was held in Paris, in October, 1890, and many valuable papers were presented. Since then the ninth convened at Chicago, in 1893 ; the tenth at Stockholm, in 1894 ; and the eleventh at Mexico, in 1898. In 1896 was organized the Société des Américanistes de Paris. The first number of its journal contains an article by Professor E. T. Hamy, *Conservateur du Musée d'Ethnographie*, upon the American collection exhibited at Genoa at the fourth centenary of the discovery of America.

Dr. Hamy, in 1897, began the publication of a magnificent album of sixty plates, with a commentary (*Galerie Américaine du Musée d'Ethnographie du Trocadero*), illustrating remarkable objects to be found in that museum, characteristic of all regions of the New World. This splendid work, due to the patronage of the Duke of Loubat, was completed in September, 1898.

Baron Nils O. G. Nordenskiöld, of Sweden, the well-known cartographer, has devoted a handsomely illustrated volume to a description of *The Cliff-Dwellers of the Mesa Verde, South-western Colorado ; their Pottery and Implements*, 1893. This was translated into English from the Swedish, immediately upon its publication, and gives an interesting popular account

of the outside appearance of things, but with no pretensions of scientific exploration.

Naturally the Smithsonian Institution and the Bureau of Ethnology, at Washington, have taken the leading part, during the past decade, in advancing the study of American Archaeology, both by exploration and by publication. Eleven large quarto volumes of Reports of the Bureau have appeared during this time. As these volumes have been widely distributed and are well known to all students of American antiquities, and their value is fully appreciated by them, I will content myself, from lack of space, with merely giving a list of the articles contained in each volume, without attempting any analysis of their contents. Vol. VI: *Ancient Art of the Province of Chiriqui, Columbia*, by William H. Holmes; *A Study of the Textile Art in its Relation to Form and Development*, by the same; *Aids to the Study of the Maya Codices*, by Cyrus Thomas; *Osage Traditions*, by Rev. J. Owen Dorsey; *The Central Eskimo*, by F. Boas. Vol. VII: *Indian Linguistic Families*, by J. W. Powell; *The Midewiwin, or Grand Medicine Society of the Ojibwas*, by W. J. Hoffman; *The Sacred Formulas of the Cherokees*, by James Mooney. Vol. VIII: *A Study of Pueblo Architecture, Tusayan and Cibola*, by V. Mindeleff; *Ceremonial of Hasjelti Dailgis, and Mythical Sand-paintings of the Navajo Indians*, by James Stevenson. Vol. IX: *Ethnological Results of the Point Barrow Expedition*, by John Murdock; *The Medicine-men of the Apaches*, by John G. Bourke. Vol. X: *Picture-writing of the American Indians*, by Garrick Mallery. Vol. XI: *The Sia*, by Matilda C. Stevenson; *Ethnology of the Ungava District*, by Lucien M. Turner; *A Study of Siouan Cults*, by J. Owen Dorsey. Vol. XII: *Report on the Mound Explorations of the Bureau of Ethnology*, by Cyrus Thomas. Vol. XIII: *Prehistoric Textile Art of Eastern United States*, by William H. Holmes; *Stone Art*, by Gerard Fowke; *Aboriginal Remains in Verde Valley, Arizona*, by C. Mindeleff; *Omaha Dwellings, Furniture, and Implements*, by J. Owen Dorsey; *Casa Grande*

Ruin, by C. Mindeleff; *Outlines of Zuñi Creation Myths*, by F. H. Cushing. Vol. XIV, Part I: *The Menomini Indians*, by W. J. Hoffman; *The Coronado Expedition, 1540-1542*, by George P. Winship; Part II: *The Ghost-dance Religion and the Sioux Outbreak of 1890*, by James Mooney. Vol. XV: *Stone Implements of the Potomac-Chesapeake Tide-water Province*, by William H. Holmes; *The Siouan Indians, a Preliminary Sketch*, by W. J. McGee; *Siouan Sociology*, by J. Owen Dorsey; *Tusayan Katcinas*, by J. W. Fewkes; *The Repair of Casa Grande Ruin, Arizona*, by C. Mindeleff. Vol. XVI: *Primitive Trephining in Peru*, by M. A. Muñiz and W. J. McGee; *Cliff-ruins of Canyon de Chelly, Arizona*, by C. Mindeleff; *Day-symbols of the Maya Year*, by Cyrus Thomas; *Tusayan Snake Ceremonies*, by J. W. Fewkes.

Since 1884 the annual report of the Smithsonian Institution has appeared in two parts, the second containing the report of the National Museum. The principal articles in the first part of the report, devoted to American antiquities, have been those of Professor Otis T. Mason: in 1889, *Aboriginal Skin-dressing*; in 1890, *The Ulu, or Woman's-Knife of the Eskimo*; in 1893, *North American Bows, Arrows, and Quivers*. The report of the National Museum, for 1894, contains an article by him on *Primitive Travel*; that of 1895 one on *The Graphic Art of the Eskimo*, by W. J. Hoffman; that of 1896 one on *Prehistoric Art*, by Thomas Wilson; and that of 1897 one on *Pipes and Smoking Customs of American Aborigines*, by J. D. McGuire; *The Man's Knife among North American Indians*, by Otis T. Mason; and *Arrowpoints, Spearheads, and Knives of Prehistoric Times*, by Thomas Wilson.

The American Association for the Advancement of Science has done much to awaken an interest in the subject of American antiquities and to promote their study, through the annual meetings of its section devoted to Anthropology, held in leading cities all over the country and largely attended. The annual addresses of the vice-presidents of the section, who are always chosen from among the most distinguished students of the

science, have usually consisted of a philosophical consideration of some general topic bearing upon this branch of knowledge, or occasionally of a discussion of some special subject. These are published in full in the Proceedings of the Association, but the papers presented at the meeting are either given only in abstract, or by title, and usually they are afterward published elsewhere

The much debated question of the alleged discovery of this continent by the Norsemen, about A.D. 1000, was freshly revived by the appearance, in 1890, of a handsome volume with the title of *The Finding of Wineland, the Good*, by Arthur Middleton Reeves, whose early death was a loss to historical studies in this country. His researches have tended to reduce the time, during which the accounts to be found in the Sagas of the voyage of Lief Ericson must have been handed down by tradition, from four hundred to three hundred years. Every one can judge for himself the probability of the minutely circumstantial details of the voyage and the landing, which the Sagas give, having been faithfully preserved in such a manner. Probably no more literary material will ever be found bearing upon this question, and the believers in the authenticity of the Saga stories have consequently attempted to strengthen their position by what they claim to be archaeological evidence as recently discovered, of the presence of the Norsemen upon our shores. The late Professor E. N. Horsford was the chief champion of these discoveries, and he devoted a vast amount of labor and spent a great deal of money in propagating his views. The site of the landing was located by him upon the banks of the Charles River, in Cambridge, and he found what he regarded as extensive remains of the continued occupation of the Norsemen farther up the river, in Watertown and elsewhere. No one can find any fault with Professor Horsford for printing his arguments in the most sumptuous form, and with a wealth of illustration from photographs and reproductions of ancient maps; but the sober student of history cannot refrain from a smile, when he embodies his notions in the solid masonry

of Norumbega Tower. Every seeker after the truth, however, must enter a protest against what he reads upon a marble slab inserted in the parapet of the stone bridge between Watertown and Newton, which stands upon the site of the earliest bridge ever built across the Charles River, in 1641, as is very properly commemorated by a suitable inscription. On the opposite parapet is the following astonishing assertion, similarly placed, and claiming equal authority in the minds of generations of school children: *Outlook upon the Stone Dam and Stone-walled Docks and Wharves of Norumbega, the Seaport of the Norsemen in Vineland. Erected by Eben Norton Horsford, December 31, 1892.*

For the past five or six years the belief in the existence of palaeolithic man in North America, which is universally accepted by the prehistoric archaeologists of Europe, and by numerous students of the question in this country, has been most strenuously contested by a certain school of archaeologists in the United States. These claim that there is no conclusive proof that palaeolithic implements have ever been found *in situ*, in the glacial gravels, at Trenton and elsewhere, and that what are claimed as such are merely the unfinished work of the Indians. Some have even gone to the extreme of asserting that no such implement has ever been found in Europe or in any other country. As neither side is able to convince the other, and as the question is the most burning one at present before the archaeologists of this country, I think it best to merely state the fact, without attempting to give a summary of the arguments on each side; especially as the present writer has published numerous articles in favor of the existence of Palaeolithic man, in this country, and his impartiality might be questioned by the other side.

HENRY W. HAYNES.

THE EARLIEST HELLENIC ART AND CIVILIZATION AND THE ARGIVE HERAEUM¹

I. INTRODUCTION

THE excavations and discoveries in Hellenic lands within the last twenty-five years have opened, and are constantly opening out new fields of observation and study concerning the origin and development of the earliest Greek civilization and art. The great mass of new material which has thus been furnished to the archaeologist has not yet reached complete elaboration even in the first stage, and still remains far removed from final systematic classification, not to speak of the ultimate light which it will throw upon our knowledge of classical history and archaeology as a whole.

¹ The official publication of the excavation of the Argive Heraeum is now in the printers' hands and will appear under the auspices of the Archaeological Institute and of the American School at Athens. My own manuscript and that of most of my collaborators has been out of our hands for some months. The interest of this important site and its excavation, covering so wide a period of antiquity, from the earliest times to the Roman period, will chiefly centre around the age represented by the first or earlier temple, and that of the second temple in which Polyclitus fashioned his famous gold and ivory statue. The finds, however, cover every department of archaeology. If I have here singled out one aspect of our finds as they bear upon one question, and publish it at once, it is because I feel that, in the wealth and variety of material presented in the full publication, this special question here treated could not there be sufficiently emphasized to stand out clearly. Moreover, as we cannot predict exactly when the official publication with its numerous illustrations will be before the public, I thought it desirable to give the main results in a preliminary form in view of the fact that many works of these early periods are now found, in the elaboration of which our results might be of use. Under these circumstances I have not given any illustrations nor references to literature, as these will be found in the full publication.

If it were merely a question of adding the new material and the new information with which the archaeologist and the general student of classical literature, history, and antiquities have furnished us within recent years, to the main body of information as it was established before these new discoveries were made, the task of the Hellenist would be comparatively simple. But such has not been the case, and, in the nature of things, could not be expected. Every new discovery, even if it does not directly contradict the established views which are based upon the material previously at the service of the careful student, certainly shifts and alters the relation, or at least the numerical proportion, of the data upon which the general induction is founded.

In some instances, however, the results of excavations like those begun by Schliemann have led to the opening out of new regions of civilized Hellenic life, giving more or less clear vistas of whole epochs which the extant literature of ancient Greece hardly touches upon or only vaguely hints at. The modern student of twenty-five years ago could only stamp these early ages as distinctly prehistoric. Whatever was then published concerning them was rightly considered not to have claims to the character of scientific demonstration or research, but rather of pure speculation. In one word, the step which since those days is being taken marks the important advance from the prehistoric to the historic. And though the shadings between these two spheres of study may be gradual and infinitely varied, so that we can hardly define where the prehistoric ends and the historic begins, there can be no doubt that the summary result of the work, which began with Schliemann's excavations and is carried on so vigorously in our own days, may be defined as the transfusion of what has hitherto been distinctly prehistoric with plentiful material and numerous data, as well as the specific methods of observation and induction which are distinctly historic in character. If we ventured to express ourselves more boldly still, we should say, that large tracts which had hitherto lain in the dim and distant region of the

Prehistoric had been explored by individual travellers and were now being annexed by a collective body of scholars to the well-established and organized territory of the Historic. But when a territory becomes thus enlarged, the whole character and geography of the long inhabited country itself becomes altered; and it may be found that a new map of the central country itself must be made. It may be found, for instance,—to continue the metaphor,—that the mountain ranges and rivers, nay, the geological configuration of the very surface that has long borne settlements and has been yielding breadstuffs, are essentially different in character from what they appeared when the physical conditions of perception in the old days enforced an artificial limit to our range of investigation, and hence of our knowledge; that the mountain ranges, which we before thought rose abruptly at the known boundary of our territory, as then drawn in our map, are a continuation of ranges which take their rise far up in the new territory we have annexed; that the rivers, the springs of which we thought lay within our own lands, are fed by tributaries, or actually take their rise in and are themselves the side-streams of, the waters that flow from the land beyond the old frontier; that our fertile soil is but the alluvial deposit which has silently been gradually borne from the distant region. It is thus chiefly in the neighborhood of the old boundaries that our old maps may have to be revised.

The case becomes still more complicated and urgent, the revision of the whole district is the more imperative, when other territories, that were hitherto supposed to be far beyond any physical contact, are explored and show evidence of essential local, if not organic, connection, however remote, with our own land. Yet such is day by day becoming more manifest, the more the excavator, the archaeologist, the ethnologist, the student of comparative philology, of comparative mythology and folklore, advance their systematic studies, not only in Asia Minor and in Egypt, not only in the whole of the Mediterranean basin and beyond it up into Central and Northern Europe,

but among the savages of the East and West and of the distant antipodes.

What the combined result on the general knowledge of man's history may be in the future, when all these points of vision are properly focussed by a great scientific genius, vigorous and yet supremely well-balanced, we dare not venture to anticipate now. But so much we may do, nay must do, now, namely, reconsider what (on insufficient data as we now know) has long claimed to be the established starting point in the study of Hellenic antiquity and ask anew some primary questions. Nay, within the range of our own special classical studies, we must even venture on some new answers to old questions put in a fresh and more adequate form.

I should not venture to discuss so wide and intricate a subject if the circumstances attending the American excavations of the Argive Heraeum had not brought to our knowledge a vast amount of material bearing directly upon these problems of the earliest Hellenic art and civilization, and if the objects found on the site itself, as well as the history of this important sanctuary, had not in so striking a manner illustrated the continuity of Greek art and civilization from the earliest beginnings to the latest decline of Hellenism. Merely to classify properly, and hence to understand the bearings of, the material with which the spade had presented us, required on our part a reconsideration of the general, fundamental, questions concerning Greek antiquity; and though due and sympathetic consideration had to be given to the published and accepted views of the known authorities, it was found that justice could be done to the rich material which a good fortune had given us, only by allowing it to speak for itself and approaching its study unbiassed by the preconceptions of established theory.

I should not venture to deal with such wide and fundamental questions within the special range of Hellenic antiquity, if I had to limit myself to generalization, however important this may be when done by some scholar well qualified for such a task. But, on the one hand, I feel the counter-balancing

security of a definite and wide range of facts and materials coming from, or intimately connected with, the excavations of the Argive Heraeum, upon which my general conclusions are based, or which, at all events, give strength and substance to the more general structure. On the other hand, I find that the material, and the evidence arising out of it, which presented itself to us from the first year of our excavations to the last year of our work on the finds, can be properly understood and explained only if viewed in connection with the chief problems of the earliest Greek civilization and in the light of the combined evidence which is presented by a wider vision over the whole field.

Before beginning this attempt to show the important bearings which the excavations of the Argive Heraeum have on the history of the earliest Greek art and civilization, I must endeavor to present the main questions properly, and to give a rapid survey of the dominant view as held before this new era of discovery, and the different basis upon which we must now stand while facing the new issues.

II. PREVIOUS VIEWS ON THE ORIGIN AND EARLIEST HISTORY OF GREEK ART

Before the excavations of Schliemann, the historians of Greek art had as their grounds for its earliest history, on the one hand, the earliest works of Greek sculpture then known, and, in connection with these, on the other hand, the tradition concerning the beginnings of art to be found in the ancient Greek writers themselves; upon both of these their speculations concerning the origin of Greek art were based. At a very early stage, however, this matter resolved itself into one on which opposite sides were taken by different authorities: the question, namely, as to whether Greek art was autochthonous, or whether it was derived from Egypt and the East. The followers of Winckelmann, O. Müller, and A. Schöll stoutly maintained that Greek art originated in Greece, and developed

upon Greek soil; while the followers of Fr. Thiersch, L. Ross and A. Hirt insisted upon the theory of a foreign origin in Egypt and the East.

In both these schools of archaeology, however, the chronology, the actual dates which they had in mind for these earliest beginnings of Greek art and civilization, were very different from those which we are now forced to adopt, as, I have no doubt, the chronology of the earliest art in Egypt held but a few years ago will be entirely altered by the prehistoric finds which are now being made in Egypt. In fact, the parallelism in the course of Egyptological study (now following that of Hellenic study) and all Hellenic antiquities, is very significant. Standing upon the basis of the then known archaic Greek works of art, especially of sculpture, which some ventured to place as far back as the seventh or eighth century B.C., but no farther, they looked back for a few centuries. And this appeared to be their limit.

On the one hand, with the full and true appreciation which these archaeologists from Winckelmann onward had of the essential characteristics of Hellenic art (and for the inheritance of which we must ever be grateful to them), they were right in pointing to the contrast between Hellenic art and that of Egypt, Assyria, and the other centres of Oriental civilization. On the other hand, they all had to recognize certain superficial similarities among the works of archaic Greek art and those of Egypt and the East. They then considered the traditions of the Greeks themselves with regard to their early art, and some of these pointed to the East, at least to Asia Minor and the islands of the Aegean,—the Cyclopes to Lycia, the Telchines and Dactyli to Crete, etc. Through the Phoenician traders and settlers, again, the connection with the farther East and Egypt appeared to be established. The traditions concerning Greek painting and architecture seemed to point in the same direction.

Then these archaeologists (and with them many to-day) saw in the Homeric Poems the source of all information concerning earliest Greek life and traditions, as they were the only extant

specimen of the earliest Greek literature that had come down to us. In these Homeric Poems frequent mention is made of articles of foreign importation from Egypt and the East. And thus it was rightly pointed out that some communication existed between these countries, at least in the period when these poems were composed.

Now these inferences were well founded as far as the evidence at the disposal of these archaeologists went. But the conclusions are now proved to be wrong when they are directly referred to the origin or the earliest history of Hellenic civilization.

Undoubtedly similarities exist between the works of archaic Greek art and those of Egypt and the East. But we always have to ask ourselves, in this case as well as in others when such similarities are made the ground for far-reaching conclusions, whether the similarities are not due to the likeness in the phase of civilization attained by the several peoples, all of whom are possessed of the same nature in the physiological constitution of their powers, both of perception and of creation.

There is evidence, it is true, of strong Eastern influence at a certain stage of what might be called the Dorian period, when an Orientalizing wave sets in and reaches down even to the seventh and sixth centuries B.C. But in our present view of ancient Greece this is a comparatively late age; and this Orientalizing wave cannot be brought into connection with the question of the origin or even of the earliest civilization and art of Hellas. There had been many centuries of civilized life in Greece proper, of which we have convincing evidence now, before this Orientalizing wave set in.

There is evidence, too, that in periods much earlier, of which previous generations of archaeologists thought little or nothing, there was occasional contact and intercommunication between Greece proper and Eastern countries, the countries of the Cyclopes, and perhaps Egypt. But this is no evidence of a direct dependence of Greek civilization upon Egypt and the

East, or of derivation from them. On the contrary, we shall see in the light of the new discoveries, especially at the Argive Heraeum, evidence of a continuous development of one civilization, which, until we can find a better term, we must call indigenous to Greece;¹ and that this civilization can be traced

¹ Of course, I do not propose here to enter into the question of the earliest prehistoric ethnology of Greece when I use the term *indigenous*. In this wide ethnological aspect of the question it may be found that there was a greater unity between East and West, North and South, along the whole Mediterranean basin, than has hitherto been assumed. The researches of Professor Ridgeway on the Mycenaean Age, and of Professor Flinders Petrie in Egypt and elsewhere, emphatically point toward such a conclusion. It appears to me that the latter's Egyptian discovery of primitive sites with all kinds of primitive ware, antedating by centuries the established landmarks of typical Egyptian chronology hitherto known, points to a phase of civilization, if not of intimate ethnological relationship, similar to the one manifested by the earlier objects from Hissarlic and from the Argive Heraeum. The more the evidence tends to point in this direction, the less ground is there for assuming a derivative dependence of archaic Greek art (in the historical period), upon established Egyptian art contemporary with it, and the line of dynasties immediately preceding it. The argument against such a dependence and derivation of Greek art from Egyptian art which I have now repeated for many years in my academic teaching, to my mind conclusive then, becomes still more binding now. This argument is based upon the undeniable fact that in those works of earliest historical Greek sculpture of the archaic period which have a superficial resemblance to the works of Egyptian and Assyrian sculpture, the workmanship itself, the actual technique in carving and in manipulation, are strikingly different from, nay, are in contrast with, the works of Egyptian and Oriental art from which they are supposed by some to be derived. Now any familiarity with the comparative study of art, in any period, including that of our own days, shows that the elements of artistic production which can be and are most readily transmitted from one place or country to another are the methods of technical manipulation, the application and the proper handling of the appropriate tools. These improved methods of manipulation can at once be imported from distant countries and can be adopted by the local artist, artisan, or manufacturer. Not so a distinctly national style. The invention of oil painting by the Van Eycks in Flanders was at once introduced into Italy; but the domestication of the Northern style of Flemish painting into Italy was not so readily effected, and did not materially modify or divert the main currents of style in the national art of the Italian schools. Nay, in our own days, when, through rapid and facile intercommunication, the distinctly national characteristics are weakened or effaced, and when mechanical manufacture has to so great a degree superseded local and individual handiwork, the technical improvements in the production of even unartistic ware are at once transmitted from one distant centre to another. We can thus readily recognize the same technical methods of production, in, let us say, the leather ware of England and of Vienna, in English, German, French, and American

from its rudest primitive beginnings to the comparatively highest forms. Upon this general and continuous line of development we can recognize the superimposition of other lines of occasional predominant influence (such as in the so-called Mycenaean and Geometric periods); and these in their predominance may modify the main current so essentially that, for the time being, they overshadow and almost hide it. In the same way we may, in later periods, recognize the 'Orientalizing waves' which almost submerge the main current of the early archaic period of recorded Greek history.

III. HOMER AND THE EARLIEST BEGINNINGS OF HELLENIC ART AND CIVILIZATION

The second great source of error which has misled scholars of the old school, and till quite recently those of our own time, in their conclusions concerning the earliest beginnings of Greek civilization, is the position which the Homeric Poems held in their minds. These were considered by the former generation of archaeologists to have been composed about the year 1000 B.C., while the current date for the Trojan war was about

woollen goods, textile fabrics, cutlery, etc.; but to the initiated the national and local style of the goods, the form and taste displayed in them, are readily distinguishable, in spite of the sameness of the processes and the attenuation of national idiosyncracies. As regards early Greek sculpture the question had to be asked: How could this be derived from Egypt or Assyria when in their working the Greek sculptors manifest such childlike, bungling inexperience in the simple application of the sculptor's tools, when Egyptian and Assyrian works of far earlier date show the most consummate skill and mastery in the carving of firm and accurate lines into the very hardest materials, such as we now can hardly work with all the improved tools of our modern inventors? If the Greek craftsmen had learned anything in Egypt which they could bring home with them, or if the Egyptian workmen had brought anything into Greece, would it not have been these elements in the production of works which are really communicable, and not the style which cannot be transplanted? Moreover, the technique as well as the style of these early Greek works present to us together and *pari passu* one with the other an unbroken line of development from the first feeble attempts at sculpture to the highest works of a Pheidias. There is no gap or jump either in technique or in style which requires for its explanation the introduction of new vital forces from without.

1180 B.C. The date of the latter event has since then been pushed back perhaps to the sixteenth century B.C. But the mistake made is, that, since the Homeric Poems are themselves the earliest specimens of Greek literature which have come down to us, their contents have been taken as the earliest evidence of history, and upon this again the inferences concerning the origin of Greek art and civilization have been, and are still, based.

Our inferences thus have been materially biassed by the position we assign to Homeric literature.

We are coming more and more to realize that the life so powerfully depicted in the Homeric Poems marks, not the beginning, but the end, of a civilization. This important fact has become manifest through the exhaustive studies, pursued by so many scholars in our own day, of Homeric language, prosody, religion, and life. It is perhaps especially the modern study of Greek mythology which has shown, and is showing, that the theology as conveyed in the Homeric Poems marks a late and final stage of development, and presumes ages of evolution, and a varied development of earlier national life. But still more will this prove to be the case when we have sufficiently studied the monuments and objects yielded by excavations, and compare the evidence they present with that contained in the Homeric Poems.

The Homeric Poems may illustrate the 'Mycenaean Age'; but they may also illustrate the 'Orientalizing Period,' referred to above, which reaches down to the Post-Dorian period after 1000 B.C., far into the archaic Greek period of historical times; while they may contain also vestiges and traces of earlier civilization, of customs and institutions, pertaining to the period of many generations before the 'Mycenaean Age.' But it will be very difficult, and, in the present stage of inquiry impossible, to identify and to disentangle these various threads of chronology and ethnography.

Now, within our own time, this Homeric civilization taken as a whole — without any serious attempt to disentangle these several chronological skeins — has been used as the solid literary

groundwork upon which the student has approached the problems of the earliest history of Greek civilization. This fact has followed necessarily out of the attempts — occasionally successful, we must admit — to identify the life and works described in Homer with the results of Schliemann's excavations. This has led to the establishment of what amounts to an archaeological commonplace — the use of the phrase the 'Mycenaean Civilization.' But the mistake has been made, and is still made, of forcing all these finds into an unnatural and 'unspontaneous' relation to the Homeric Poems, of focussing the objects which present themselves to our careful conscientious scientific observation and study, from the literary point of view. The result is that we approach the study and appreciation of the objects themselves with an initial bias.

This has been the general process of archaeological study in the past, owing to the actual history of that study. For classical archaeology has arisen out of the study of classical language and literature, and has been and is still, to a great extent, regarded as a department of *Klassische Philologie*.¹ The result is that the view we have taken of the vast material in monuments and objects, which recent excavations have yielded, is not only too narrow in its field of vision, but that this narrowness is positively misleading with regard to our just appreciation of their nature and import. The time has come when we must emancipate ourselves from the dominance of what might be called the worship of Homer. We must come to realize more than we have hitherto done (and the work of men like Mr. J. G. Frazer has helped us much in this respect) that to follow the traditions, the popular lore, embodied in such writings as those of Pausanias, may be a safer guide for our knowledge of the earliest life and art of ancient Hellas than are the Homeric Poems. But even these popular traditions must be used by the archaeologist as secondary evidence only after he has examined thoroughly, with unbiassed eyes, the monuments with which the fortune of the spade has presented him.

¹ See my *Essays on the Art of Pheidias*, pp. 8, 9.

IV. THE MYCENAEAN AGE (HISSARLIC, TIRYNS, MYCENAE) AND THE EARLIEST GREEK CIVILIZATION AND ART

The outcome of all the excellent work which has recently been done on the Mycenaean Age is that to modern archaeologists Hellenic life and civilization begin strictly with that age. Before this, with a distinct line of demarcation, similar in its defining quality to the line which divided the Hellenic from the Eastern and Barbaric in later historical periods, is what is called the 'Primitive Period.' This Primitive period, from the paucity of monuments or information about it, but still more, I hold, from the exoteric position assigned to it as regards the sacred domain of Hellenism, has been treated hitherto as a kind of negligible quantity. The peoples who lived on these sites and who made these monuments have been considered either non-Hellenic or an uncivilized and nomadic people, a *Hirtenvolk*, who could not claim to be brought into direct relation with Hellenic civilization. To these belonged the earliest rude walls built of small stones, placed one upon the other like the walls of sheepfolds, in the first or lowest layer of Hissarlic, and the class of vases designated as 'primitive,' to which in the handbooks a few pages are assigned, before the real Hellenic pottery is introduced in the long chapters on Mycenaean pottery. The chief sites upon which this whole view of earliest Greek chronology is based are those of Hissarlic, Tiryns, and Mycenae. It is chiefly at Hissarlic that the lowest primitive layer is found, and until 1893 it was regarded as 'conclusively established' that the next layer above it, containing a burnt city with strongly fortified walls, numerous buildings, and a large palace crowning it, was the original Mycenaean citadel, the counterpart to those of Tiryns and of Mycenae,—itself the Troy of Homer.

This was the state of the question when, in the spring of 1890, I visited Hissarlic as a member of the International Commission (among whom were men like Virchow, Babin, Humann,

Hamdy Bey, and Von Duhn), which was to report upon the evidence presented on the spot by Schliemann and Dörpfeld as to the identity of Hissarlic as the site of Troy. The commission at that time wisely refrained from passing any final judgment upon this definite question of identification in spite of all the emphatic evidence adduced in all its details on the spot in favor of the second city by one who, like Dr. Dörpfeld, has a knowledge of ancient walls and architecture, only equalled by the constraining power of his persuasive eloquence. As regards the definite statement of that commission, we limited ourselves to the refutation of Bötticher's assertion that it was the site of a 'cinerary necropolis,' and we distinctly affirmed that it was a fortified city.

After the death of Henry Schliemann, Dr. Dörpfeld continued the excavations at Hissarlic in 1892, and the results of these excavations were first published in the Athenian *Mittheilungen* of the German Institute in 1893. We were then, and have been since still more emphatically, informed, that the Homeric Troy, illustrating the Mycenaean Age, was not to be found in the second layer from below, but in the sixth layer. The sixth is now as certain as the second was before. "The size of this pergamos about corresponds to that of the citadel of Tiryns; its area is at least twice as large as that of the citadel on the second layer. . . . We have here come to know a citadel which can be worthily placed by the side of those of Tiryns and Mycenae, and which well deserves to be celebrated in the verse of Homer. . . . The citadel of the second layer is separated from that of the sixth by three settlements placed one above the other, and must now be considered to reach back to an age of which we cannot show another structure, even approximately similar, in Europe. It probably will have to be pushed back even into the third millenium B.C. That the first, or lowest, layer must be still considerably older is evident to every one familiar with Trojan ruins."

It is in this sixth layer and city that vases of the Mycenaean style were found. And when we remember that such vases

were not found in the lower layers, the identification of this sixth city with the Mycenaean Age has the strongest support. But the difficulty comes in dealing with the architectural remains. For in this sixth layer there was found "the most splendid citadel which lay on the hill of Ilion in prae-Roman times. The remains of seven large buildings were laid bare even in the first year. These have in part the ground-plan of the early Greek temples and of the *megara* of Tiryns and Mycenae; but they surpass them in their measurements and in the care of their building."

But if the *κλυτὰ τείχῃα* of the "Ἴλιος εὐτείχεος were not Cyclopean, but were, like the houses of the sons of Priam, built of smoothed stones (*ξεστοῖο λίθοιο*), the whole question of Cyclopean architecture and its date, as well as the relation of Tiryns and Mycenae to the sixth Homeric city, must be reconsidered. If the Homeric attributes refer to the walls of the sixth city, what becomes of the rude Cyclopean walls of Mycenae, and a portion of those of Tiryns? Can the same term be applied to well-cut masonry and the rude Cyclopean walls? I believe not. If it does apply, as seems to me probable, to the walls of the sixth city, with its masonry of well-cut stones, then the rough Cyclopean masonry is much older. Was not ancient tradition right in pushing these Tirynthian walls as far back as Proetus, whom — it must be well noted — the same tradition places three generations before Perseus and the Perseids, and thus many generations before the Pelopids and the Achaeans?

And if Dörpfeld was right in insisting upon the identity of ground-plan in the buildings on the citadel of the second city of Hissarlic and those on the citadels of Mycenae and Tiryns, and finds the same system in his sixth city at Hissarlic, what does this identity mean? Does it not mean, if the sixth city corresponds to the Mycenaean Age, that there is identity of tradition in building, arguing for the identity of a continuous civilization, from the second (which Dörpfeld places in the third millennium B.C.) to the sixth city; that the civilization of

the people living on the Mycenaean sites and continuously connected with the Mycenaean people goes back for many generations beyond the monuments and dates hitherto identified with that people, and that at Tiryns and Mycenae it reaches from at least the period of Cyclopean masonry to that of the Troy of Homer?

But it may now be urged, that, after all, Hissarlic is not in Greece proper, and that, though it is of supreme and unique value in presenting us with such marked stratification of archaeological layers, the remains of one city being superimposed upon the other, still the evidence of the successive cities and of the peoples inhabiting them is not conclusive as regards *Hellenic* cities and *Hellenic* peoples, even though in the future a closer affinity between these peoples and those of Greece proper in those early ages may be established.

This objection does not exist in the case of Tiryns and Mycenae; for these cities are in the Argive plain, the Hellenic centre *par excellence*, the centre in which dwelt the people who, in our earliest traditions and in the Homeric Poems, are identified with Hellenic life, and who continuously, throughout all periods of Greek history, maintained a central importance. But the objection to the evidence of these two sites when it is a question of the broad and continuous development of Hellenic civilization is, that they do not present us with the *strata* of Hissarlic, in fact, that each only marks one period in the early history of the districts, that Tiryns was superseded by Mycenae, as Mycenae again was superseded by the city of Argos.

V. THE ARGIVE HERAEUM AND THE EARLIEST HELLENIC CIVILIZATION AND ART

When we consider these limitations which Hissarlic, Tiryns, and Mycenae present, it is then that we realize the unique importance of the Argive Heraeum in relation to the question of the earliest history of Hellenic civilization. For the Argive Heraeum not only marks one period, as did Tiryns

and Mycenae, but was a centre of civilization through all the ages of which we have archaeological evidence.

The Argive Heraeum is thus the centre of early Hellenic life in Greece proper, and, being the sanctuary for the whole plain, it was the temple of Tiryns. The supporting wall of its old temple was built at the same time as the Proetean walls of the Tirynthian citadel. Though I do not wish to encumber this paper with venturesome hypotheses, there is some evidence that this site was an inhabited, perhaps a fortified, place before it was a sanctuary.¹ Some of the objects there found certainly point to an earlier period than the building of the Proetean walls. But when Tiryns was superseded by Mycenae, the Heraeum was still the great sanctuary of Mycenae. After this it was, as Strabo tells us, the sanctuary for both Mycenae and Argos; and, at last, it followed the predominance of Argos

¹ A passage in Bacchylides (XI, 40-85), to which Mr. Hugh Veebohm has drawn my attention, is so striking a confirmation of such an hypothesis that I must here refer to it in a few words. The fate of the daughters of Proetus is here recounted by the poet. The punishment inflicted upon them by Hera was due to their disparagement of her sanctuary in comparison with their father's abode, Tiryns. The Heraeum and Tiryns are thus placed in rivalry. Now the cause of the superiority of Tiryns is indicated in the succeeding lines which explain the origin of this splendid new city—namely, its Cyclopean walls. These are mentioned as an innovation which the older seat of the goddess did not then possess. Furthermore, from line 55 on, the whole context seems to indicate that the seat of Acrisius is contrasted with the seat of Proetus, the one without Cyclopean walls, the other having recently added them, and these two cities appear to be, in the mind of the poet, and of the tradition he is following, the Heraeum and Tiryns. Though I have pointed out elsewhere that in Homer Argos is used for a wider district and country, and not for the *city of Argos* (which city we must date later even than Mycenae), the use of the term Argos as the seat of Acrisius in this passage, as well as in others referring to him, seems to point to the Heraeum. Professor Ridgeway has already felt the probability of this identification, without the instructive confirmation from Bacchylides, when he says: "Argos is used of a city, either the city called Argos in historical times, or more probably the Heraeum" (*Journ. Hellen. Stud.* 1896, p. 91). On the other hand, the passages in Pausanias (II, 16, 2; II, 12, 2) make Proetus the possessor of the Heraeum. Whether this possession of the Heraeum took place at a later period in the strife between Proetus and Acrisius, of which it was a result, or is due to a confusion on the part of Pausanias, I do not venture to decide. At all events, the literary evidence strangely points to the earlier date of the Heraeum, as compared with Tiryns and, *a fortiori*, of Mycenae.

when that city was supreme over the whole district. But at all times it was the chief religious centre of the whole Argive district, where the records were kept; and the lists of priestesses there deposited served as the chronological standard for the Argive district, as in later times the Olympiads were recognized by the united Hellas. The monuments and objects which were there found in our excavations, moreover, lead us, from the earliest Pre-Mycenaean beginnings, through all periods of Greek history, down to Roman times; they are analogous to those of the lowest layers of Hissarlic, they lead us through the ages of Tiryns and Mycenae and every one of the succeeding periods of art and civilization. This surely makes the Heraeum a unique site among the ancient centres that have been restored to us, unique, at all events, in its bearing upon the question of the earliest Hellenic civilization.

The fact is that these conclusions, hinted at in the remarks I have just made on Dörpfeld's new sixth city at Hissarlic, were beginning to be impressed upon me from a different quarter, quite independently of any evidence from Hissarlic, at the conclusion of the first year's digging of the Heraeum in 1892, when the trenches were sunk on the site of the old temple, and when I examined the pottery found and pointed out that the vases hitherto known as Proto-Corinthian were probably Argive. These conclusions were supported and confirmed by every year's digging, and the more I examined and grasped the importance of the collected mass of finds which my colleagues have been arranging and classifying since then, the more I studied and began to grasp the true meaning of the Argive Heraeum, the place which it held in the history of the Argive plain, the evidence of its succession of walls, and the many significant works of ancient ceramic art and terracotta figurines. Though I stated my views concerning the Argive-Linear ware in several public meetings—and am glad to find they have been in part already accepted by archaeologists—I did not think it right to bring these facts before the public, until the whole of our material could be studied

in detail by my colleagues and myself, and the conclusions based upon this study could mature in our minds.

Now all the separate lines of evidence converge to one proposition: that the Argive Heraeum was the centre of a civilized community which existed many generations before the Mycenaean Age; and that this civilization, in spite of change, modification, advance, and occasional retrogression, was continuous, and finally led up to the historical period of the purely Hellenic Age. The beginnings of Hellenic civilization must thus be recognized in the works before us from the Argive Heraeum which antedate the Mycenaean Age and show a continuous tradition. This central and important fact forces itself upon us the more, when in the light of our discoveries taken as a whole, we study the topography and architecture of the Heraeum in connection with the ancient literary traditions of the Argive plain; and it is finally confirmed by the evidence of the individual finds in vases, terra-cottas, early cut stones, etc.

(a) TOPOGRAPHY, ARCHITECTURE, AND LITERARY TRADITIONS

The first important fact which the examination of the topography of the Argive Heraeum teaches us, when this is considered in connection with the architectural remains on the site, and the literary traditions of the Argive district, is that the Heraeum was not erected for the city of Argos; nor could it have been built by the Mycenaeans to serve as their temple. Its topographical position points toward Tiryns and Midea; it commands the plain which is governed on the side of the sea by Tiryns.

From the very outset, in dealing with Argive subjects, we must guard against the misleading confusion (recognized even by Strabo) of the term Argos with the city of Argos. The city of Argos as a fortified centre is clearly the latest of the three citadels which successively dominated the plain and its inhabitants, the chronological order being, first, Tiryns, then Mycenae, and last, the city of Argos. The term is used in Homer to desig-

nate the country of the Argive people, and to this he gives an indefinite and varied extent, sometimes probably referring to those who dwelt in the specifically Argive plain, stretching from the Nauplian Gulf to the entrance of the pass leading to Corinth, and bordered on either side by the Parnon and Arachnion ranges. At other times the Homeric Argive land includes the district which in later Roman times was called the Argolid; again it is used for the whole of Peloponnesus, and the name Argives sometimes included the whole Hellenic people. But the real local centre is the Argive plain.

Now this Argive plain is subdivided into two districts by the river Inachus, the western division being commanded by the city of Argos, the eastern containing Tiryns, Midea, and Mycenae. The most important division of the plain is the one to the east and northeast of the Inachus, and this is the district which, according to tradition and by the archaeological evidence in the remains, was most important also in the early times. This district extended down to the sea in the region of Nauplia; and it was at this point that, owing to the marshy nature of the seaboard, the early inhabitants settled upon the nearest low hillock and there built their citadel of Tiryns. Looking northward up the plain, among the foothills of Mount Euboea, an eminence juts forth suggesting a fitting termination at this end. The site of the Heraeum thus commands the plain eastward toward Tiryns and the sea and to the west up to the passes which lead to Corinth. There is a logical and natural selection of this site as a most prominent centre to the plain with an immediate relation to Tiryns and Midea.

On the other hand, as far as the topographical evidence is concerned, the Heraeum could not originally have borne any immediate relation to Mycenae. For Mycenae, hidden away behind the hills in the northwestern corner of the plain, is not visible from the Heraeum; nor is the Heraeum visible from any part of Mycenae. It is hardly likely that the early settlers of Mycenae would have chosen such a spot for their chief sanctuary. The first temple in the sanctuary, the supporting walls of which are

in structure identical with the fortress walls of Tiryns built for Proetus, faced toward Tiryns and stood in manifest relation to it. It is universally recognized that these Tirynthian walls are earlier than those of Mycenae. But in a subsequent period the sanctuary shows a relation to Mycenae, and, at last, to the city of Argos. In studying the ground-plans of the ten different buildings which we have unearthed within the sanctuary, it is most interesting to note how the earliest temple platform with its buildings faced in the direction of Tiryns; how then, more and more, the mass of buildings shifts its relation toward the west and southwest where the road led to Mycenae, until, at last, when the supremacy of the city of Argos is fully established, the whole sanctuary seems to face about, and, with the temple built by Eupolemus and adorned with the statue of Polyclitus, the splendid staircases and beautiful colonnades are erected on the southern slope, facing the city of Argos, whence the chief approach leads to the temple. Thus the topography of the site and of the buildings primarily points toward Tiryns and not to Mycenae, and would thus lead us to expect remains antedating the period of Mycenaean supremacy.

I cannot here enter into the mythology of Hera and the complicated question of the position of that goddess in the early growth of Greek religion. I must simply point to the fact that the temple was that of a female maternal divinity, who ruled over the people of the Argive plain from the earliest times, and was so firmly rooted in the traditions of these people that she maintained herself as supreme even after Apollo Pythaeus became a ruling divinity in the city of Argos, as he undoubtedly was a national divinity to the Dorians in their most remote centres.

In classifying the remains of the numerous buildings within the sanctuary, Mr. Tilton and I have prepared a series of plans showing the accretion of buildings in the various periods. In our opinion the earliest walls consist of remains of the most primitive masonry (necessarily slight, but none the less distinct), which formed parts of dwelling houses, immediately below the

Cyclopean supporting wall as well as portions of the peribolos wall along the southern slope. These mark an earlier stage of construction than that of the great Cyclopean supporting wall, and, of all ancient remains, they correspond most nearly to those of the first city of Hissarlic. As has been said above, the Cyclopean supporting wall at the Heraeum corresponds in all points to the Proetean wall of Tiryns. The architectural remains thus clearly add their evidence to the existence of the Heraeum before the building of Mycenae. The earliest really correspond to those remains which, as regards Hissarlic, Dr. Dörpfeld now places in the third millenium B.C.

These conclusions are further confirmed by local Argive traditions as handed down by Pausanias. In the general introduction to the official publication, I have endeavored to show how two groups of genealogies which Pausanias gives in the sixteenth and eighteenth chapters of his second book, at first so confusing, present a systematic sequence, when we realize that the traveller probably ascertained the genealogy given in the sixteenth chapter while at the Heraeum, and that of the eighteenth chapter in the city of Argos. It will then be found that the latter genealogy begins at, and fits on to, the point where the Heraean and older genealogy leaves off — namely with Megapenthes. However much that is mythical may have accumulated around many of the names there given, the fact remains, that the ancient Greeks themselves and the people who preserved these traditions viewed them and guarded them as chronicles of their early history, so that Arcesilaus even endeavored to assign a fixed date to Phoroneus. It is after Abas that the district, which before that was apparently under one ruler, is split into two, and that the one half falls to Proetus with Tiryns as his centre, while through Acrisius the reign of the Perseïds begins which subsequently leads to the foundation of Mycenae. Megapenthes again settles in the city of Argos, from which centre we have an unbroken line of rulers. But, as far as these traditions go, it is important for us to realize that fourteen generations of rulers are mentioned be-

fore Perseus and the Perseïds founded Mycenae, and at least nineteen generations before Agamemnon held his sway in this ancient city. At all events, the traditions amply show that the civilized life which was supposed to begin with Phoroneus (the act probably consisting in the building of a citadel which was to unite the peoples scattered over the plain) was established in this district long before the specifically Mycenaean Age.

Still more definitely is this view sustained by the vast number of individual finds which we have made at the Heraeum. I do not propose here to touch upon the whole of these finds even in their general groupings. I have given a general survey of these in so far as they bear upon the problem we are discussing in my general introduction to the official publication. Moreover, they are dealt with in detail by the several editors who have undertaken to publish the special departments of finds. But I must here single out two groups of objects—the early terra-cotta images and the vases—not only because their evidence taken as a whole appeared to me so conclusive with regard to the question we are now treating, but also because the study of these objects and the discoveries which are every day being made in them can be advanced only by a consideration of the results to which the study of all our finds together have led us. Even if the positive conclusions to which we have arrived be not accepted, it cannot but be well for those who are classifying early vases and terra-cottas, to guard against the ready acceptance of the now prevalent system of classification as if it were fully established and final.

(b) THE EARLY TERRA-COTTA FIGURINES FROM THE ARGIVE HERAEUM

Mr. Chase and I, after careful study of the many thousand specimens of early terra-cotta figurines from the Heraeum,—by far the richest find of such objects yet presented to the student,—have established a principle of classification by means of which the chaotic mass of early ware has at last

become clearly intelligible. Mr. Chase has conscientiously examined each one of these many thousand specimens in the light of this classification, and has thus submitted it to a thorough and trying test.

We can distinguish at least eight or nine definite categories marking a normal and gradual development from the earliest types down to the middle of the fifth century B.C.; and though these classes may be, and certainly will have to be, subdivided by future investigation, and we were ourselves tempted to carry on the development of our work on these lines, we felt that at this stage we must remain content with the establishment of distinct groups, which we venture to hope will be recognized as such by all our colleagues. It is an interesting and significant fact, moreover, that the chronological classification of early terra-cotta images corresponds to the classification which Dr. Hoppin has accepted for the early vases.

Now, among the early terra-cotta images from the Heraeum we have found specimens that are distinctly of the class known as Mycenaean; I mean that class of rude image in which, above the rounded base representing the lower part of the body, corresponding very well to the foot of a vase, there is a flattened round mass, circular or semicircular in shape, for the torso, and again above this the neck and the head, corresponding very well in character to the neck and top in vases. Purely conventional as is this type, the modelling of the interior of the rounded circular body, as well as the painted ornamentation there found, mark a far higher stage of naturalism, and much greater technical skill than would seem warranted by the absolute conventionality in the main construction of the human body in these 'ceramic' figurines. They are almost always found by the side of the distinctly and fully developed Mycenaean vases of the various periods; and, besides at Mycenae proper, they occur at the Heraeum, at Tiryns, and on all other sites that have passed through a Mycenaean phase.

But at the Heraeum we have another class, still more common, which from internal evidence of style and technique is

seen to be distinctly earlier than these Mycenaean terra-cottas. Though one isolated specimen of this class (of which we have many hundreds) appears to have found its way into one Mycenaean grave, these are not to be found at Mycenae, while they do occur in considerable numbers at Tiryns.

Far earlier in style and technique than either of these two classes is a very large class which we have called 'Primitive,' and which gradually leads over from the rudest beginnings to our second or 'Tirynthian' class. The earliest and rudest of these, without any attempt at indication of sex, or real articulation of the human body, can hardly be recognized as an attempt of rendering the human figure. The early coroplast gives a slight pinch to the elongated mass of soft clay in the region below the arms, so that the beginnings of these are indicated, while a pressure of the clay at the upper end produces a rounded or pointed termination for the head. From these rudest beginnings is a gradual development in articulation, until the head is formed in as far as the coroplast gives a tight pinch at the top between his fingers, producing a kind of beak to which two small globules of clay are added on either side for the eyes; and we thus get the bird-shaped beak which is meant to stand for the human head. The well-defined rendering of the human head really only begins in our fifth class.

Our first or primitive class lends itself to much greater differentiation and classification. Its development alone points to a long period in the rudely artistic activity of the people who dedicated them to the goddess. At all events our terra-cottas distinctly show that images were dedicated to the goddess within this sanctuary long before those of the Mycenaean type, *i.e.* those which correspond to the Mycenaean vases and are found with them, were made.

(c) THE EARLY VASES FROM THE HERAEUM

From the nature of ceramic ware, its durability through all ages, and its worthlessness to the invader or iconoclast, who could not carry off or utilize its remains in the same way as

he eagerly possessed himself of metal, threw the marble into the limekiln, or carried off the stones for his rude dwelling,—from these causes pottery has always been the chief guide to the excavator of ancient sites. On the worthless vase-fragment often depends our knowledge of remote antiquity. It was the presence of Mycenaean vases and fragments which led Dr. Dörpfeld to recognize in the sixth city of Hissarlic the Mycenaean Troy and the Troy of Homer.

Realizing this great importance of ancient vases for the study of antiquity, we must be cautious and conscientious in forming our theories regarding them. And though, as I believe, the large mass of vases and vase fragments found at the Heraeum are of especial importance with regard to the history of early Greek ceramics, and deserve the exhaustive study which Dr. Hoppin has given them for years (the results of which he will give in the official publication), I feel that the evidence of our finds, taken as a whole, is so important in its bearing upon the main question with which we are dealing, that my treatment of this subject would be incomplete if I did not adduce this evidence here. Moreover, it is just in the domain of ceramics that I think the speedy publication of our results is called for as a guide or a warning to those who are dealing with the new material which excavations are constantly yielding.

It is owing to the excellent work which Furtwängler and Löschcke have done on the Mycenaean vases, that these have been made the central point from which early Hellenic vases are now universally studied. But it is also in great part owing to this good work, to the importance which the Mycenaean vases have in defining the Mycenaean Age, and to the wide diffusion of these vases over all ancient sites, that the initial error, which I am endeavoring to combat,—the exaggerated importance of the Mycenaean period,—has been incurred.

When, during our first year's excavation, in 1892, I recognized the great number of the small vases, many of them of

exquisite workmanship, which had hitherto been known as Proto-Corinthian, I suggested that these were of local Argive manufacture, and proposed for them the name of Argive-Linear. I noticed also that the same principle of linear decoration recurred among other and earlier vases not belonging to this distinct category. All these vases showed in themselves, and in the principle of their decoration, a gradual and normal development; the same principle of linear ornamentation was to be found in the earliest and rudest ware, in fact, there was an unbroken progression from the earliest primitive beginnings of the ceramic art, in the small vases from the Heraeum, to the best and latest specimens belonging to the Argive-Linear (Proto-Corinthian) period. This principle of decoration seemed, at first sight, to differ essentially from the recognized main principle of decoration in Mycenaean vases. I thus found myself forced to study carefully the principles of Mycenaean vase decoration, and to reconsider the essential features in the decoration of all early vases.

Now it is well known that the rough and ready classification of early Greek vases in their main features, as they are supposed to succeed one another and to mark distinct periods, is that of Primitive, Mycenaean (with which Hellenic Ceramics proper are supposed to begin), Geometric; then, with intermediary stages from other parts of the ancient world, we arrive at the Proto-Corinthian class. Then follow the Corinthian and the early Attic classes, which lead us down to the firm ground of the typical black-figured Greek vase.

The chief distinctive features of these several classes are supposed to be the following:

The vases of the Primitive or early Hissarlic type are rudely fashioned, hand-made (not wheel-turned) pots of rough, unpurified clay, and have either the eccentric shapes which the rough skill of a figure-modelling potter gave them, or—and this is by far the more numerous class—they consist of unornamented pottery of rudely rounded forms, which, when ornamented, have incised lines scratched or pressed into them.

The important point is that this incised decoration is purely linear and decorative in character. I mean by *decorative*, that the principle involved in this ornamentation is distinctly not that of the reproduction of objects seen in nature, the form or meaning of which was the leading motive which made the potter draw these lines. They are to serve as ornaments, and nothing more.¹

In spite of all the subdivisions and classifications within the Mycenaean vases themselves, the leading and distinctive features of these vases, features in which they are held to differ from the Primitive class which precedes them and the Geometric class which follows them, are three in number as regards their decoration. The painted ornaments are drawn in free-hand, the drawing is comparatively naturalistic, and, for the first time in Greece, we have in vase painting the introduction of glazed color, which maintains itself in Greek ceramics, and is one of the most marked features in these beautiful works of art ever after.

In the decoration of the Geometric vases, which follow upon the Mycenaean, we have a relapse into the mechanical spheres of decoration. The chief characteristic of these vases is not so much to be found in what we usually call 'geometric drawings,' for this linear principle of decoration prevailed even before the Mycenaean period. Nor is it to be found in the choice of unmeaning subjects of decoration, for they frequently render human figures and animals. But it is to be found in a combination of the mechanical spirit in drawing as opposed to that of freehand execution, together with a mechanical repetition and redundancy of design which reminds us of the processes applied by the weaver of textile fabrics or the plaiter of basket-ware.

The decoration of the small Argive-Linear (Proto-Corinthian) vases, however great their superiority of manufacture over the

¹ The significance of this point in the general development of art and its bearing upon the principles of aesthetics, I must reserve for treatment on some future occasion.

rude Primitive-Linear ware may be, is again in principle the same as that of this early ware. It consists of a series of parallel lines, generally straight or concentric, drawn with extreme accuracy and firmness, and ornamenting vases the actual making of which both in the treatment of the pure clay and the thinness and evenness which they exhibit, is of the very highest excellence.

I must now turn to a more searching investigation of the principles of Mycenaean vase ornamentation, omitting here, for the present, the innovation marked by the glazed color, which, important as it was to the whole subsequent history of ceramics, may have come from abroad. The principle of design in Mycenaean vase painting does not seem to me to mark such a new departure as is claimed for it. On the contrary, as far as the evidence of our Heraeum finds goes, it seems a natural and organic development out of earlier forms of primitive pottery in the Argolid.

There is a class of Mycenaean vases known as the vases with 'dull-colored' (*mattfarbige*) ornamentation. Though it appears that some specimens of these have been found in later Mycenaean strata, there can be no doubt that, as a class, they precede those of the 'glaze-color' order. Our finds at the Heraeum distinctly bear this out. Now these dull-colored vases, as far as our finds and with but few exceptions the finds of all other excavators go, are *purely linear* in design. At the Heraeum these small vases, in the clay itself, in their technique as well as their shape, distinctly belong to the same category as those of the Primitive-Linear class. These linear ornaments in them, as well as in those which decidedly belong to the Primitive class, are *free-hand* in character. A real change comes into the whole current of this decorative development, when the wheel is introduced and the vases are thrown and not modelled by hand. The lines of the ornaments then become mechanical and not free in character. In the official publication I have arranged a most graphic and striking illustration of this process from the earliest incised linear

ornaments, through free-hand painting to its final mechanical stage in the vase thrown on the wheel.

Now the tradition and the custom of free-hand vase painting, surviving as it does, leads, through some of the advanced specimens in the so-called Santorini or Thera vases, to the Mycenaean vase proper with its free-hand and naturalistic ornamentation. The whole mental and artistic attitude, the *ethos* of the painter, is altered when he advances in the skill of using the brush; and then, spurning the mechanical influence of the wheel, he clings to free-hand drawing. He naturally soon turns to the living world and strives to render this, presenting its freedom and vitality. The early primitive vase decorator, the painter of the Linear dull-colored vases, naturally leads us to the Mycenaean vase painter. There is thus no break, but continuity, from the Primitive to the Mycenaean period as regards the principle of vase decoration. We shall presently see how the mechanical principle of linear decoration also survives and is absorbed into the body of Mycenaean vase painting.

Despite the powerful development and predominance of the artistic principle in the Mycenaean style during a certain period, succeeded by the prominence of the Geometric style in a subsequent period, the evidence of the Heraeum finds shows that the original linear principle never died out there but maintained itself during these periods in unbroken sequence, and that when the Mycenaean and the Geometric currents were weakened and attenuated, this linear principle again asserted itself and in its turn attained preëminence. This happens with that class of vases which have passed through the improvements of technique introduced by the Mycenaean and the Geometric potter, but are still restricted to small shapes; and these we have called the Argive-Linear or Proto-Corinthian. These for a time predominate, yet gradually become more and more affected by the 'Orientalizing wave' which seems to spread over the whole of Greece in that later period, and thus leads to the Corinthian and early Attic classes.

The earlier and purely linear principle maintains itself during

the Mycenaean and Geometrical periods chiefly in the vases of small dimension. Being smaller and cheaper, they appear thus not to have attracted the skill of the more proficient and ambitious potter who has advanced in his decoration to the higher phases reached in the larger and more beautiful Mycenaean and Geometric vases. It is always in this cheaper local ware that the earlier local style of the people themselves, which has aptly been called *Bauernstyl*, has greater power of survival. We thus have in our Heraeum vases a continuous series of such smaller pots with purely linear design, not only from Primitive and 'dull-colored' periods (when only that linear principle prevailed), but of distinctly Mycenaean and Geometric manufacture, in clay, shape, and general character.

But the persistence and continuity of this Linear principle at the Heraeum shows itself even in the larger and purely Mycenaean or Geometric vases as well, — I mean in those vases that manifest the fully developed, distinctive qualities of their ornamentation. Nay, I venture to say that the more mechanical linear ornament, which Mycenaean vases absorb from the Primitive and dull-colored classes, as well as the free-hand tendencies, is never absent in the whole development of purely Mycenaean vase painting. Many of these larger vases are decorated only with concentric stripes and purely linear design. Even in those with naturalistic rendering of plants and marine zoölogy, the whole surface of the vase is subdivided according to its vase structure — foot, belly, shoulder, neck, and lip — by concentric lines that carry on the early linear principle and are the ornament which alone is found in the later Argive-Linear vases. Nay, if we take a fragment of one of the large Mycenaean vases containing these parallel stripes alone (though the other portions contained naturalistic Mycenaean ornament) and reduce this in size, I would defy any archaeologist to distinguish it from a similar fragment of our Argive-Linear, the so-called Proto-Corinthian, vase. The same holds good also with regard to the large Geometric vases.

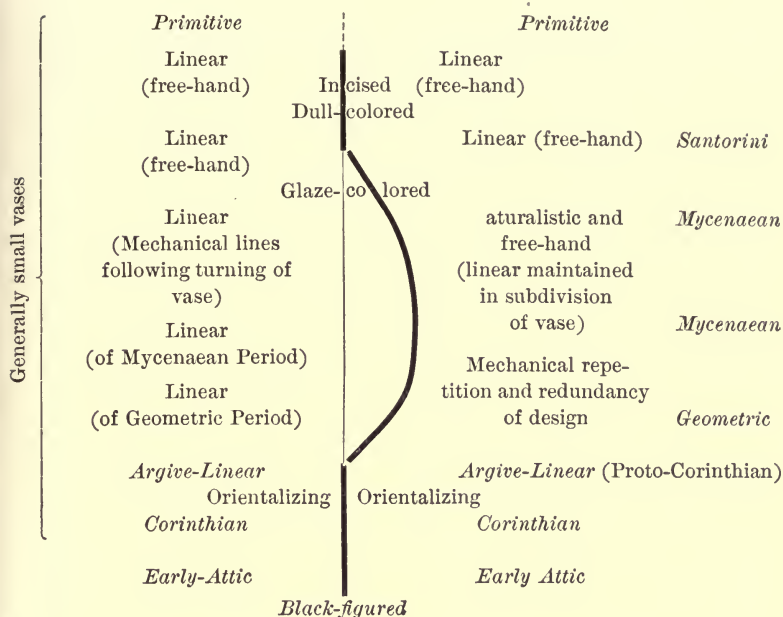
Finally, I would adduce a striking instance from Mycenae

itself to support my proposition. Tsountas found at Mycenae a beehive tomb of which the *dromos* was closed by stones, among which was a slab which bore interesting Mycenaean wall paintings.¹ In the interior of this tomb were found Mycenaean vases which have exclusively linear designs. But, still more interesting than these, is the stone slab which stopped the *dromos*. This slab must be considerably older than the grave itself and its contents, as it had fallen into disuse when it was taken for such a casual stop-gap at the time the grave was made. The mural painting upon it belonged to a previous period. But before the stone was decorated with naturalistic Mycenaean painting it served some other purpose and was decorated with incised lines during this first use to which it was put. For, at the upper part of the slab, the stucco forming the ground for the painter is broken away and reveals an incised ornament — *which is purely linear* in design. The first of the three periods in the history of this stone slab shows linear decoration, the second naturalistic wall painting, the third corresponds to the vases in the tomb with linear designs. The continuity of purely linear design at Mycenae itself is thus proved.

Now what these facts teach us is, that the linear principle of vase decoration is the earliest out of which, as regards free-hand drawing, the Mycenaean style is evolved, and is continuous in the Argive district from the earliest Primitive to its final revival in the late Argive-Linear period; that it never completely died out, though Mycenaean and Geometric periods were superimposed and were for a time predominant. Finally, they teach us that, before the Mycenaean Age, there was a considerable period of activity in ceramic art, which is not essentially different from it in kind, and points to the same continuity in the civilization of the people who made these vases.

The following diagram, in which the thinness or thickness of the line marks the degree of predominance, will illustrate what I here maintain to have been the general development of early Greek ceramic art:

¹ Εφην. Ἀρχαιολ. 1896, pp. 2 seq. pls. i and ii.



VI. CONCLUSION

We find then that we must look to an earlier time than the Mycenaean Age for the beginnings of Greek art and civilization in the earliest Argive period. Whatever weight, be it great or small, may be given to the ancient local traditions as contained in the Argive genealogies, it is worthy of note, that according to these, the fourteen generations preceding the founding of Mycenae by the Perseids, reckoned at thirty years, would bring us to the beginning of the nineteenth century B.C., if we place the Mycenaean Age, as is now done, in the fifteenth century B.C. Dr. Penrose, on the ground of his comparative studies on the orientation of Greek temples, moreover, gives the year 1830 B.C. for the building of the older Heraeum. It is also worthy of note that this corresponds to the computation actually given by the ancients; as Eusebius¹ quotes from Acesilaus for the date of Phoroneus 1020 years before the first Olympiad, which

¹ *Praep. Evang.* X, cap. x.

brings us to about the same date. I venture to believe that some of the remains at the Heraeum as well as those of His-sarlic considerably antedate this time. But we may hope that in the future the Pre-Mycenaean period as well as the Mycenaean period itself will be further differentiated in the light of the careful scientific study of the remains before us now. We may then hope to get a classification of the Pre-Archaic Greek of which I venture here — as an hypothesis, but surely a justifiable hypothesis — to give a plan, taking, especially for the earlier portion, the names of the rulers who mark a distinct style in civilization and art.

- (1) *The Phoronean*, corresponding to the Primitive wares in terra-cottas and vases, as well as earliest walls.
- (2) *The Proetean*, corresponding to Tirynthian terra-cottas and early dull-colored vases, and Cyclopean walls of Tiryns and Heraeum.
- (3) *The Perseïd*, corresponding to Mycenaean terra-cottas and Mycenaean wares, and outer walls of Mycenae.
- (4) *The Pelopid*, corresponding to further stages of Mycenaean terra-cottas and vases, as well as advanced Mycenaean building.
- (5) *The Proto-Dorian*, corresponding to 'Geometric' terra-cottas and Geometric vases, inner walls of old Heraeum.
- (6) *The Dorian*, corresponding to Human-headed terra-cottas and Argive-Linear (Proto-Corinthian) ware.
- (7) *The Orientalizing*, Orientalizing ware, terra-cottas, and vases.
- (8) *Archaic Greek*.

I must, before closing this inquiry, add a few remarks on the Post-Dorian history of early Greek art.

If we are right in pushing back the earlier stages of Greek civilization by so many centuries before the time which the previous generation of classical archaeologists assigned to it, there is a striking compensation or recoil as regards the beginnings of archaic sculpture proper and the specifically Hellenic art. I mean the Greek art which had its revival in the Renaissance, and which, to put it briefly, embodies itself in pure art, in contradistinction to decorative art, in the statue and the picture

and not in the ornamented object, whether the ornament be in relief or in painting. The beginnings of the art of the Greek sculptors who made statues in the round, and of the painters who made pictures, were, there is every reason to believe, later than the previous generation of archaeologists assumed, confusing, as these did, this question with the question of the earliest beginnings of art and civilization in general. These beginnings of the statue and the picture probably are not to be found before the distinctly Orientalizing wave is beginning to spend itself in Greek decorative art. It is then that the Greek temple-statue (*agalma*) becomes a fixed institution and leads to those statues made of wood (*xoana*) which are associated with the name of Daedalus and his school.¹ At all events it is a period when the demand for such temple-statues in the round is such as to call for a definite class of artisans or artists, whose profession it is to make *xoana*. It is thus that, according to Apollodorus,² this Daedalus is called *πρῶτος ἀγαλμάτων εὐρετής*. With him Aristides³ begins sculpture, while Hyginus calls him the first to have made statues of gods.⁴ From these early temple-statues to the establishment of that ideal type which guides our taste down to the present day, in which (and this is the cause of its power of persistence) naturalism and idealism are completely and harmoniously blended, the historical evidence in monuments and literature is before us. Yet we can recognize as the chief impulse which gave Greek art these leading and lasting characteristics, the influence of their great national institution, the athletic games, when once the sculptor's art was called in to commemorate the victories of their successful votaries.⁵

CHARLES WALDSTEIN.

¹ I have dealt with the historical aspect of Dedalic sculpture in an article on 'Dédale et l'Artémis de Delos,' *Revue Archéologique*, 1881, p. 321.

² Apollodorus, III, p. 30.

³ *περί ρητορικῆς*, I, 30.

⁴ 274.

⁵ See 'The Influence of Athletic Games upon Greek Art,' from the *Proceedings of the Royal Institution, Great Britain*, 1883, in my *Essays on the Art of Pheidias*, pp. 394 seq.

THE DATING OF SOME DIDASCALIC INSCRIPTIONS

ATTENTION has not been called to the very serious difficulties involved in the accepted dating and restoration of the didascalie inscription no. 972, in the second volume of the *Attic Corpus*, although they are of such a kind as to disturb the student both of scenic antiquities and of Greek literary history. The stone itself has unfortunately been lost, so that the limits of space which would determine the restorations to be made are somewhat uncertain in several instances. The copy given by Le Bas, whom Köhler has followed, seems more trustworthy than that of Fourmont, upon whom Böckh had to depend. In order that the difficulties which I shall point out may be more readily perceived, I give the restored text, after Köhler, of the first column, which alone interests us here:

- [ὁ δεῖνα τέ(ταρτος) . . .]στίδι
[ὑπε : 'Αριστόμ]αχος
['Αντιφάν]ης : πέμ : 'Ανασωαζο(μένοις)
[ὑπε : 'Αντ]ιφάνης
5 [ὑπο : . . .]ώνυμος ἐνίκα
[Ἐπὶ Δι]οτίμου Σίμυλος
... σίαι : ὑπε 'Αριοστόμαχος
Διόδωρος : δεύ : Νεκρῶι
ὑπε 'Αριστόμαχος
10 Διόδωρος τρί Μαινομένω(ι)
ὑπε Κηφίσιος
[Φο]ινικ[ίδ]ης τέ : Ποητεῖ
[ὑπε :]ης.

It will be observed that all of the restorations except [Ἀντιφάν]ης in l. 3, and [Φο]ινικ[ίδ]ης in l. 12, either are indicated by the context or are epigraphically certain. In l. 5 the actor's name can hardly be other than [Ἴερ]ώνυμος, if the space indicated by Le Bas is even approximately correct. As to [Φο]ινικ[ίδ]ης there can scarcely be a doubt, although Le Bas leaves space for three letters where *ιδ* are restored. But in copying this inscription Le Bas (or his source) is everywhere careless in marking the extent of the lacunae where the beginning of a line is broken off, and the more naturally since he never attempted to fill in the lacunae, as the epigraphist would do nowadays. Φοινικίδης is the only name conceivable for . . . ΝΙΚ . . . ΗΞ, as Köhler saw. The Νικ[οχάρ]ης of Böckh disregards the *l* before the *N*, as well as the space for one letter which Le Bas leaves at the beginning of the line, assumes a lacuna of four letters in the middle of the word, and places this poet impossibly late. There remains then to consider only [Ἀντιφάν]ης in l. 3. This restoration depends primarily upon the fact that Antiphanes wrote a play entitled Ἀνασφρόμενοι. But this title was also employed by Diphilus, Eubulus, Hipparchus, and an unknown poet of the new comedy (*C.I.A.* II, 975, *d*), so that the restoration, after all, is conditioned by the date of this record. If the Diotimus of the next year was the archon of 354/3, as Böckh naturally assumed, then the name of Antiphanes is undoubtedly to be admitted. But there was another archon Diotimus, who can now be placed definitively in the year 289/8. I believe that positive evidence can be produced in favor of the later date. But first a word as to this inscription, under its present dating, as a didascalie document.

The second column of this inscription contained, as Köhler has shown conclusively, the tragic didascalie of the Lenaeon festival of the years 419, 418, and 417. The fact that the victorious comic actor is mentioned in the first column may be accepted as proving equally conclusively that this portion also is Lenaeon, if the accepted dating is correct; for in the inscriptions of this period which have reference to the Dionysia only

the victorious tragic actor is given, never the comic. Down to the year 329, the date of the latest Dionysian record which we possess (*C.I.A.* II, 971, *h*), the contest of comic actors had not yet been introduced into the greater festival. The tragic Lenaeon didascaliae therefore began at the top of the second column, and the first column of our fragment is the last column of the comic Lenaeon didascaliae. We do not know how many lines to the column the original inscription contained. Assuming, however, that it was between 100 and 140, containing from 9 to 12 years, and that this fragment stood as near the top as possible, the comic didascaliae could not have extended beyond 346-3. Now is it possible that the record came to a close at this date? The corresponding record of tragic events at the Dionysia (*C.I.A.* II, 973), which extends into the year 339, bears the marks of having been put on stone in the third century. The two inscriptions are in all respects counterparts of one another and evidently belonged to the same didascalie series.¹ The materials for these records were first compiled, as it seems, by Aristotle. There is every reason *a priori* to believe that these two catalogues once formed part of the same inscription and were put on stone at the same time. Therefore, unless the comic contest at the Lenaea was discontinued some time in the forties, the position of our inscription in the series is unaccountable. We know, however, that it was not discontinued. Apart from the fact that Aristotle in the *Πολιτεία* gives no intimation to this effect, we have in the inscription *C.I.A.* II, 1289 a proof, hitherto overlooked, that the Lenaeon contest had suffered no curtailment up to the year 307/6. This inscription gives the name of the agonothete for the year, then the victors: (1) the tragic poet, (2) the tragic actor, (3) the comic poet, and (4) the comic actor. The omission of the dithyrambic events, for the existence of which at the Dionysia of this period there is ample evidence in the agonothesia inscriptions, and the

¹ *Ποητεῖ* for *Ποητῇ* in no. 972 would be quite the rule in the third century, but somewhat exceptional as early as 354. Since the stone is lost, no judgment can be given on the basis of the forms of the letters.

fact that comedy is given the place of honor after tragedy, compel us to the conclusion that this document refers to the Lenaea. It is clear, therefore, that from this point of view the interpretation of our inscription, under its present dating, involves most serious difficulties, to say nothing of the further necessity of assuming that the Lenaeian tragic contest, the record of which was begun in the next column, was not inaugurated until 420, which again is opposed to what little information we have on the subject.

Turning now to matters of literary history, we find equally weighty objections to the present dating. We may pass over without special emphasis the improbability that, if Simylus was a poet of the Middle Comedy, a play of his was revived as a *παλαιὸν δράμα* over 150 years later, long after the revolution in comedy had been fully accomplished. Köhler's restoration of Ἐράτων Μεγ[αρικὴ Σιμύλου] in no. 975, *a*, however plausible in itself, cannot be regarded more than remotely possible so long as Simylus retains his position as a contemporary of Anaxandrides and Antiphanes. It is surprising, too, that this poet, if the Lenaeian victor of 353, does not appear in the catalogue of Lenaeian victors, *C.I.A.* II, 977, fragg. *f*, *h*, *g*.¹ It is possible, of course, that his name stood in the lacuna of four lines between Ἀριστοφῶν and Κηφισόδωρος. We must bear in mind, however, that there is no evidence whatever, apart from that of our inscription, which places Simylus in the Middle Comedy.

A strong argument is furnished by the name of Phoenicides. In restoring his name here, Köhler simply followed the epigraphical indications, and did not attempt to explain how this poet could have begun his career at so early a date. The only independent evidence of the time to which he belonged is furnished by Hesychius, *s.v.* *δυνάσαι σιωπᾶν*, who quotes from his *Ἀλλητριδες*. See Kock, *C.A.F.* III, p. 333, and Meineke, *Hist. Crit.* p. 481 *sq.* In this fragment reference is made to the treaty between Pyrrhus and Antigonos, an event which Droy-

¹ That this is the Lenaeian, and not the Dionysian catalogue, as has been believed, I have shown in the *American Journal of Philology*, vol. XX, no. 80.

sen dates in the year 287. It is distinctly incredible that Phoenicides produced a play at least sixty-seven years before this time. Either Köhler's restoration of his name in our inscription must be given up, however necessary it seems epigraphically, or the archon Diotimus must be the magistrate of 289/8, unless we assume a corruption in Hesychius. To retain the restoration, the old date, and the *Ἀλλητρίδες*, as Kock does, mutually contradictory as they are, and that, too, without so much as a query, is against both common sense and method.

Perhaps it may be suggested incidentally that the title of Straton's play *Φοινικίδης*, as well as the chronology of Straton himself, finds a ready explanation if we accept the proposed date. It was not an uncommon occurrence for one comic poet to take the name of another as a title. Now of Straton we know only this: he ridiculed Philetas of Cos, who flourished ca. 300; several verses of his *Φοινικίδης* are quoted by Athenaeus as from some play of Philemon. For the former reason Meineke (*Hist. Crit.* pp. 426 sq.) rightly rejects Suidas' statement that Straton belonged to the Middle Comedy. Whether he borrowed from Philemon, or Philemon from him, we cannot know, but certainly the former supposition is distinctly more probable, and becomes possible if we learn that he was a poet of the third century,¹ a contemporary of Phoenicides. However, the names *Στράτων* and *Φιλήμων* may simply have become confused in the text of Athenaeus.

It is a fortunate circumstance that the case against the accepted dating of our inscription does not rest solely upon these objections, although, to my thinking, they are sufficient. Confirmatory evidence of a positive nature is to be found in

¹ It is possible to identify him with the successful comic actor to whom Plutarch, *Quaestt. Symp.* 5, 1, refers, without changing *κωμῳδός* to *κωμικός*. Many of the comic poets, of this period especially, served an apprenticeship as actors, as in the early comedy. He may even be the father of the comic actor Philon, who appeared at Delphi toward the middle of the third century. A different person was the *Στράτων Ἰσιδότρου Ἀθηναῖος*, the *κωμῳδός* at Oropus and Thespieae early in the first century. The latter is undoubtedly identical with the *Σ. Ἰσιδότρου Κυδαθηναίεύς* of the sepulchral inscription *C.I.A.* III, 1778.

connection with the actors mentioned — Aristomachus, Hieronymus, and Cephisius. To fix the date of these actors it will be necessary to make a digression.

Among the fragments of the great catalogue of victors at the dramatic contests, *C.I.A.* II, 977, fragg. *uv* and *f'w* have not been definitively identified. Bergk thought that the names were those of tragic poets, *audacius quam uerius*, as Köhler remarks. Oehmichen saw comic poets in the lists. Köhler was inclined to the view that the names were those of actors, comic or tragic. Now it can be shown that Köhler's surmise was correct, and that in fact we have comic actors. This I have attempted to prove elsewhere, but the accepted dating of the didascalie inscription under consideration stood in the way of a complete identification. The text of the four fragments is as follows:

	<i>uv</i>	<i>f'w</i>
	Ἀρισταγόρας I	Ἀριστόμ[αχ[ος -]
	Κάλλιππος IIII	.. \ΕΑΞ II
	Ἀσκληπιόδωρος II	.. ἐνικος I
	Π]ολύενκτος I	Δ]έρκετος I
5	Π]υρράλεος I	Ἀριστίων II
	Μ]οσχίων II	Φιλωνίδης I -
 ω]ν I ¹	Φιλοκλῆ[ς -]
	Ἰ]ερώνυμος IIII	Καλλίστρ[ατος -]
	Ἀ]ριστόμαχος III	Ἐμμενί[δης -]
10	Δέ]ρκετος I -	Πολυκ[λῆς -]

	Φιλοκ[λῆς -]
	Ἀριστοκράτης I
	Ἐμμενίδης I	I.....
15	Αὐτόλυκος I	Δ.....
	Φιλωνίδης I	Φιλ.....
	Σωκράτης I	Ἐρω.....

The names of a considerable number of comic actors of the first half of the third century are known to us through the

¹ The reading here given is somewhat different from that reported in the *Corpus*.

Delian and Delphian agonistic inscriptions. Those from Delos to which I shall refer are published by Hauvette-Besnault in the *Bull. Corr. hellén.* 2, pp. 104 *sqq.*, the latter are found in the appendix to Lüders, *Die dionysischen Künstler*. Reisch has shown that the Delphian inscriptions fall somewhere near the year 270; the Delian have been dated to the year. Now it can scarcely be a matter of accident that some of the names of these comic actors are found in our victors' catalogues, and that the dates of their appearance at Delos and at Delphi correspond closely to the chronological order indicated by their position in the lists. I will consider the names in the order in which they occur in the catalogue.

Κάλλιππος υν, 2: *Insc. Del.* 270 B.C. This person is identical with the Lenaean victor of 306 B.C. in *C.I.A.* II, 1289—*ὑποκρίτης [κωμωδίας Κάλλιπ]πος Καλλίου Σουνιεύς*.

Μοσχίων, υν, 6. No *κωμωδός* of this name is known. But in the Delphian inscriptions (Lüders, p. 194) appears a comic *διδάσκαλος*, *Μοσχίων Εὐβούλου Γαργαρεύς*. I do not urge the identification, but the fact that this person was a *διδάσκαλος* at Delphi is no objection to it. A *Κηφισόδωρος Καλλίου Βοιώτιος*, who appeared as *διδάσκαλος* at the Soteria, is found later as a comic *χορευτής* (Lüders, pp. 192 and 197), and so with *Θύρσος Κρίτωνος Ἐφέσιος* (*ibid.* pp. 192 and 196). Still more in point is the *κωμωδός*, *Κλεόξενος*, at Delos in 270 B.C., who is presumably the same as the *διδάσκαλος* at Delphi (Lüders, p. 189). We know of many comic poets who had been actors earlier in their career. This was particularly true of the period which we are considering. Several known examples could be cited, including Philemon the Elder (*Arist. Rhet.* 3, 12; *Aesch. Tim.* 132). Under the influence of the guilds the marked distinctions which once existed between the several branches of the dramatic profession were broken down. The member of the guild seems to have served an apprenticeship as dancer, as actor, and as *ὑποδιδάσκαλος* before he was employed as *διδάσκαλος*; while those of greater gifts turned their attention to writing. Later on we find dramatic poets taking part in country festivals as *ποιηταὶ*

ἔπων, and still later in both tragedy and comedy. But this is not the place to enlarge upon this subject.

Ἰερώνυμος, *uv*, 8: *κωμῳδός* at Delos in 282 B.C.

Ἀριστόμαχος *uv*, 9, and *f'w*, 1: He is not found as *κωμῳδός*, except in our didascalic inscription, but was possibly father of the *κωμῳδός* at Delphi Φιλωνίδης Ἀριστομάχου Ζακύνθιος (p. 189, Lüders). It would be interesting to know how frequently son succeeded father in this profession, as in tragic and comic poetry. It was certainly a not uncommon occurrence. The dates would admit of the hypothesis here.

Αὐτόλυκος, *uv*, 15: *Insc. Delph.*, Αὐτόλυκος Ἀστωνος Αἰτωλός, pp. 192 and 194, Lüders.

Φιλωνίδης *uv*, 16, *f'w*, 6: Besides the comic actor, son of Aristomachus, mentioned above, a comic actor of the name performed at Delos in 265. He may be the Philonides of our list.

Πολυ[κλῆς] *uv*, col. II, 1, *f'w*, 10: Adopting Köhler's restoration we may identify with the Πολυκλῆς of the Delian inscription of 282 B.C. This is rather better than to identify with Πολύκριτος Κασσανδρεὺς *Insc. Del.* of 261 B.C., not only on account of the date, but because the former's name is given without the ethnikon. Although the usage of the Delian inscriptions is not consistent in this regard, yet in a number of instances the person so undesignated is known to be an Athenian, while in one instance Ἀθηναῖος is added simply to distinguish from a homonym who appears in the same list, *e.g.* Διόδωρος Σινωπεύς and Δ. Ἀθηναῖος.

Λυκισ- *uv*, col. II, 2: *Insc. Delph.*, Λύκισκος Λύκου Κεφαλλάν, Lüders, pp. 192 and 197.

Καλλίας, *uv*, col. II, 6: This may be the son of Κάλλιππος, who, as we have seen, was himself the son of Callias. He may possibly be the Καλλίας Καλλίππου of the sepulchral inscription *C.I.A.* II, 3819, of unknown provenance.¹

¹ Cf. the double gravestone found at Menidi, *C.I.A.* II, 2493 b: Καλλίας Καλλίου Ποτάμιος | Κάλλιππος Καλλίου Ποτάμιος. The actor Κάλλιππος came from Sunium. The deme Ποτάμιοι lay between Sunium and Thoricus, belonging to the same tribe as Sunium, Leontis.

Μενεκλῆς *uv*, col. II, 7: κωμῳδός at Delos in 282 B.C.

.. \EAΞ, *f'w*, 2: The letter before E was either Λ or M. In the Delphian inscriptions (p. 194, Lüders) we find a comic actor Δημέας Ἀναξικράτου Ἀθηναῖος. The name is precisely suitable, and should be restored. Quite apart from the epigraphical considerations for the identification, the fact that this actor was an Athenian makes it probable that he appeared in the Athenian contests.

Now of course it cannot be maintained that the identifications above suggested have severally strong claims to probability. But the double coincidence of name and date for one-third of the names in our victors' lists would certainly seem not to be purely accidental. The relative merits of the proposed identification of the catalogues will be more fully appreciated if one tries to find similar coincidences among the known names of tragic and comic poets and of tragic actors. Bergk pointed to the names of Moschion and Philocles, tragic poets of the fourth century; but where are the names of the better known tragic poets of this period? Oehmichen seized upon the names of the comic poets of the fifth century, Philocles (?) and Philonides; but his whole combination is utterly impossible, now that we know that frag. *v* belongs with frag. *u*. As regards the poets of the New Comedy, we find only two known names, Asclepiodorus, of the last half of the second century (*C.I.A.* II, 626), and Philocles, the victor in no. 975, *d*, ca. 160 B.C. Of tragic actors we find the names of Asclepiodorus, of the first century (*Insc. Meg. Orop. Boeot.* 3195); Socrates, of the fourth century; Heracleides, of the latter part of the fifth century (977, *e*), or of the first half of the second (Le Bas, no. 258); and Philocleides (Φιλοκ.. in *uv*, col. II), who appeared at Delos in 286. It is impossible to effect an identification on the basis of these scattered names. Since the catalogues must belong to one of these four categories, we cannot hesitate to assign them to that of the comic actors.

To return now to the didascalic inscription, we find further evidence in favor of the later date which we propose in the

names of the comic actors mentioned. Cephisius, who was protagonist in one of the comedies of Diodorus, is unquestionably to be identified with the *Κηφίσιος Ἰστιαιεύς* who performed as *κωμῳδός* at Delos in the years 284 and 280. No other comic actor of the name is known. It is obvious, also, that the Hieronymus of our inscription is the same actor who appeared at Delos in 282 B.C., and whose name is found in the victors' list, and that Aristomachus as well is identical with the comic actor who is shown by the same list to have been a contemporary of Hieronymus. The fourth actor, [*Ἄντ*] *ιφάνης*, is unknown.

A close chronological connection of *C.I.A.* II, 972, with the victors' lists, the choregic inscriptions of Delos, and the Soteric inscriptions of Delphi is established, and the accepted dating of the archon Diotimos must give way to the date which I set out to establish, 289/8. The chronology of the poet Phoenicides, as indicated by this inscription, is in complete harmony with the notice in Hesychius. Simylus belonged to the New Comedy, not to the Middle. Köhler's restoration of *C.I.A.* II, 975, *a* may now be accepted without doing violence to all that we know concerning the essential differences between plays of the New and of the Middle Comedy, which entirely altered the conditions of their performance in the theatre. Diodorus must also be transferred from the Middle Comedy to the New. He was assigned to the former by Meineke solely on the strength of this inscription (*Hist. Crit.* p. 419). I would go further, and identify him with the *Διόδωρος Σινωπεύς* who appeared as *κωμῳδός* at Delos in the years 286 and 282. Athenaeus tells us that the poet was a native of Sinope.¹

The poet Antiphanes died ca. 310, and consequently could

¹ Diodorus and Diphilus may have been brothers, for we know that the latter was a Sinopean; cf. the sepulchral inscription, *C.I.A.* II, 3343, *Δίων Διοδώρου Σινωπεύς* | *Δίφιλος Δίωνος Σινωπεύς* | *Διόδωρος Δίωνος Σημαχίδης*. Kumanudes first recognized the two poets' names. We now see, however, that the poet Diodorus is the second, not Dion's father. The demotikon *Σημαχίδης* confirms the statement of the *Auctor Lex. Hermann.*, p. 324, that he was an Athenian — evidently by adoption. It is now clear that *Δι[όδωρ]ος* cannot be restored in *C.I.A.* II, 977, *g*. *Δι[ονύσι]ος* is also impossible, if I am right in reading on the stone *ΔΓ: . . ιΞΙ*.

not be the author of the Ἀνασφζόμενοι of our inscription. If we may trust Le Bas's copy — ΙΞ, with room for six or seven letters — it is impossible to restore Ἰππαρχος or Δίφιλος. Of the known poets of this period one might suggest Φοινικίδης, Καλλιάδης, or Φιλιππίδης. The fact that the poet was given the lowest place is somewhat against Φιλιππίδης, who was one of the ἀξιολογώτατοι of the New Comedy. We know that he was a prominent personage in Athens at this time (*C.I.A.* II, 314–284 B.C.). Καλλιάδης won his first Lenaeon victory between ca. 315 and 305 (*C.I.A.* II, 977, *g*), and his name is of suitable length. But there is really no evidence on which to base a decision. As for the play. -- στίδι in l. 1, now that the Ἀλκηστίς of Antiphanes, which Böckh proposed, is out of the question, the Μυστίς of Philemon may be suggested. No other known title would be suitable. At this time Philemon was still active. But Le Bas reports A before the Ξ.

Although the evidence for the existence of a contest of comic actors at the Lenaea as early as 354 seems at first glance to have been removed by the new dating of this inscription, yet new evidence has been found in its place by the identification of the fragments of the victors' catalogue. The upper margin of frag. *u* is preserved; Ἀρισταγόρας was the first name in the column. The heading which introduced each of the eight sections of the catalogue, in this case probably Νῖκαι Διονυσιακαὶ (or Ληναϊκαὶ) ὑποκριτῶν κωμικῶν, was accordingly at the head of a previous column, and the section of which frag. *u* was a part began at least one column further back. Since Callippus was victorious at the Lenaea at least as early as 306, and each column contained seventeen names, the first victory recorded in the preceding column must have been won some time in the thirties. But at that time the comic actors' contest had not been introduced into the City Dionysia. Hence fragg. *uv* must be assigned to the Lenaea, and *f'w* to the Dionysia. Fragment *p*, which contains the names of well-known comic actors of the middle of the fourth century, formed a part of the second column preceding *uv*. From the fact that *f'w* must be assigned

to the Dionysia we learn for the first time that the comic actors' contest was at some time introduced into the programme of this festival. As early as 307/6, as we have seen, the tragic actors' contest had been admitted to the Lenaea. It is natural to assume that the two innovations were made at the same time. Now, if *f'w* was in the second column of the section *Νίκαι Διονυσιακαὶ ὑποκριτῶν κωμικῶν*, the beginning of this contest would be carried back to the time when we know positively that it did not exist. We must consequently conclude that *f'w* was in the first column of the new section. In this case, allowing one line for the heading, not more than six names preceded that of Aristomachus. We do not know when this actor won his first City victory, but it was almost certainly before 288, for in the Lenaeian catalogue Hieronymus, his immediate predecessor, is only six lines after Callippus, who won in 306, and possibly earlier. The victory of Hieronymus in 289 was therefore not his first, but more likely the second or third. It is entirely possible, therefore, that the Dionysian list of comic victors goes back to the time of the introduction of the tragic actors' contest into the Lenaea. Now Köhler has made it appear extremely probable that the agonothesia¹ replaced the choregia in 309/8. Are these other innovations to be traced to the same period?

This leads to another important conclusion: inscription no. 972 may be either Lenaeian or Dionysian, since the record of the actors' contest is no longer decisive. The great didascalie

¹ Little is to be made out of the account given in *Vit. X Orat.* 841, ε, of the contest of comic actors at the *Χῦτροι*, τὸν νικήσαντα εἰς ἄστυ καταλέγεσθαι. See Müller, *Bühnenalt.* pp. 310, 362, and notes. The statement is still further discredited by the evidence above cited.

Haigh, *Att. Theat.*² p. 76, n. 3, dates the establishment of the agonothesia in 318, depending on the statement of Plut. *Phoc.* 31: *ἐπεισε καὶ δαπάνας ὑποστῆναι γινόμενον ἀγωνοθέτην* (i.e. Nicanor). But, in the first place, this does not necessarily mean that Nicanor undertook this office at once, and, secondly, we know too well the habit of Plutarch of translating such accounts into the language of his own time to set up this statement against the strong arguments of Köhler. We have, in fact, a decree of the deme *Αἰξώνη*, thanking the *χορηγοί* of the year 317/6 for their services: *C.I.A.* IV, 2, 584, b.

inscription, of which this was a part, may have been arranged: (*a*) tragedy at the Dionysia, (*b*) comedy at the Dionysia, (*a'*) tragedy at the Lenaea, (*b'*) comedy at the Lenaea. This is Köhler's supposition. Or the order may have been *a, b, b', a'*, comedy being given the greater prominence at the Lenaea. The order *a, a', b, b'*, is excluded by the presence of tragedy in the second column. In view of the fact that no old play was brought out in 288, as is also the case in the Lenaeian inscription of 306 (*C.I.A.* II, 1289), while in the other comic didascaliae of this period (no. 975, *f*) *παλαιᾶ* appears, we may provisionally, at least, accept no. 972 as the Lenaeian record, and no. 975 as the Dionysiac.* The arrangement was then *a, b, b', a'*.

If our fragment stood near the bottom of the great didascalie inscription, the beginning of the record of tragic contests at the Lenaea would fall somewhere between 430 and 440 — nearer the latter date if each column contained ca. 140 lines. This result has considerable significance for the explanation of the discrepancy that exists between the large number of victories recorded for *e.g.* Sophocles in Suidas (24), and the smaller number given in the Dionysian catalogue of victors (18), which is in agreement with Diodorus. On the other hand, the Lenaeian comic didascaliae came to an end on this stone soon after 288, and were continued, if at all, in another place. It does not seem likely that the comic contest at the Lenaea was discontinued at this time, for Eudoxus, according to Diogenes Laert. 8, 90, was victorious four times at the Lenaea. We do not know the date of this poet, but he was probably active at a period later than that of this inscription. The only safe inference, then, from the fact that this record was brought down only to ca. 287, is that at this time the series of didascaliae was compiled and officially inscribed on stone. This agrees with the epigraphical evidence to which reference has been made.

It has been thought that we have no comic didascaliae between inscription no. 972 and the year 187, which is the date of no. 975 *a*. I am convinced, however, that several of the fragments of the latter inscription belong to the third century. Again

the names of the actors furnish the clew. In frag. *h* we find *Λυσίμαχος*. Now a comic actor, *Λυσίμιχος Εὐκράτου Βοιώτιος*, took part in the Soteria at Delphi somewhere near 270 (p. 194, Lüders). In the fifth line is the name of another actor at Delphi, *Φίλων Στράτωνος Ἀμβρακιώτης*, p. 194, Lüders. Since the words *ἸΩΝΕΝΙΚΑ* extend almost to the end of the line, the name to be restored was either very long or very short. The latter alternative must be chosen, because in the first part of the line the actor who appeared in the play mentioned at the end of the preceding line must have been given. Everything, therefore, points to *Φίλων*. In l. 4 Köhler restored the title *Ἀτ]θίσιν* with great plausibility. The only poet of whom a play of this name is known is Alexis. That he was alive and active as a poet until ca. 272 is shown by the allusion in the *Ῥοβολιμαῖος* to Ptolemy's marriage with his sister and to the *όμόνοια* arranged between the Egyptian king and the leading potentates of Greece (frag. 244 Kock). Kaibel thinks it is possible that he lived until ca. 270 (Pauly-Wissowa, *s.v.* Alexis). If the *fasti* of archons for the two decades anterior to this date were complete, we might hope to supply the archons in the two last lines, for the second name was precisely four letters shorter than the one preceding it. I have filled in the names provisionally. Another possibility would be *Ξενοφώντος* (286/5) and *Οὐρίου* (285/4).

..... ὑπ]ε *Λυσίμαχος*
 [ποιητῆς] *ακοντα*
 [ὑπε ποιητῆς] *Σαλαμινίαις*
 [ὑπε *Φίλων Ἀλεξίς Ἀτ]θίσιν*¹
 [ὑπε ὑπο *Φ]ίλων ἐνίκα* '
 [Ἐπὶ *Ἀριστωνύμου οὐκ ἐγένετο* (281/0)
 [Ἐπὶ *Γοργίου οὐκ ἐγένε]το* (280/79)

¹ Judging by the recurrence of three titles in three successive lines, Köhler surmised that one poet competed with three pieces. But it is scarcely conceivable that he should have obtained the three last places with these. The apparent crowding is rather due to the chance that the poets' and actors' names were short.

The name of the actor Lysimachus probably occurs also in frag. *i*. I would restore as follows:

[Ποιητὴς . . .] Προγ[α]μοῦντι
 [ὑπε. Σαννί]ων(?)
 [Φιλήμων π]ρεσβύτερος τεθ[νηκὼς]
 [Παρακατα]θήκει
 [ὑπε. Λυσί]μαχος

Six other poets whom we know employed the title *Παρακαταθήκη*, but it is not attributed to Philemon. But the approximate date being furnished by Lysimachus, it is not easy to find another poet who would be designated as *πρεσβύτερος*. The second Philemon was undoubtedly active at this time. His father died in 263/2 or the year after; hence this fragment was lower down in the column at the top of which was frag. *h*. *Σαννίων* is suggested in l. 2, because the name exactly fits the space. A comic actor of this name appeared at Delos in 286 B.C.

A special interest attaches to the name of the actor Lysimachus from the fact that he may be identical with the comic poet of whom Lucian relates an amusing incident in *Δίκη φωνηέντων*, 7. Sigma, sojourning in an Athenian colony, is entertained *παρὰ κωμωδίων τινι ποιητῇ*, *Λυσίμαχος ἐκαλείτο, Βοιωτίας, ὥς ἐφαίνετο, τὸ γένος ἀνέκαθεν, ἀπὸ μέσης δὲ ἀξιῶν λέγεσθαι τῆς Ἀττικῆς*. In spite of his pretensions, his speech betrays the foreigner at every turn, not only by unconscious Boeotianisms, but also by extravagant Atticisms like *βασίλιπτα*. Although this person is not referred to elsewhere as a poet, Meineke was not disposed to consider the name as a pure invention on the part of Lucian. Lucian's language distinctly implies that he was not a great poet. He may very well have been a familiar figure at Athens as an actor, however. Boeotians apparently played a very insignificant part on the Attic stage. In a list of about 175 comic actors I have found very few Boeotians, and none save Lysimachus who seems to have performed at Athens. The comic actor and the comic poet of the same name, both

of them Boeotians, one boasting of his Attic culture, the other performing on the Attic stage, and both, finally, of the period of the New Comedy¹—is it not extremely probable that they are one and the same?

To return to the didascaliae, frag. *f*, which Köhler places somewhere in the second century, presents several points of attack. Köhler himself calls attention to a peculiarity the true significance of which we are now in a position to appreciate—the omission of the actors' contest, twice indicated in the first column by the omission of *ἐνίκα* after the actor's name just before the date line. Now it is not at all likely that this contest, after it had once been established at the City Dionysia, should ever have been omitted, especially since at this time the actor's profession constantly grew in importance and influence. This consideration leads to the suspicion that the events recorded in frag. *f* are of a date anterior to the innovations made between 308 and 290. Nor are other indications wanting which tend to confirm this suspicion. In the second column is the poet's name TIMOC, who won second place in the contest. This must be Τιμόθεος, with Köhler. Suidas assigns this poet to the Middle Comedy, but in *C.I.A.* II, 977, *c* his name must be restored as victor just before Poseidippus,² who, according to Suidas, began to exhibit three years after Menander's death, *i.e.* ca. 288. Again, in col. I, the play which won second place was the Ἀνεψιοί. Menander alone is known to have composed a play of this name. The piece which is mentioned in the fourth place is the Ἐμπορος, a title used by Epicrates, who seems to have belonged to the Middle Comedy, and by Philemon and Diphilus. The name of the last-mentioned poet would fit

¹ Lucian represents the action of Sigma against Tau as having been brought in the year of the archon Aristarchus of Phaleron. No such person is known. The name is probably fictitious, although there may have been an archon of this name in the first half of the third century. There was an archon Aristarchus in the first century B.C., but this cannot be urged against the identification.

² The Corpus gives only ΕΟΞ, but the last part of the Θ can be made out on the stone. ΤΙΜΟΘ would exactly fill the space required by ΠΤΟΞΕΙ in the line below. The restoration may be regarded as certain.

the given space precisely. Everything points to the same conclusion—that the second column belongs to the period after Menander's death, the first to the time of his activity before the introduction of the actors' contest. Consistent with this hypothesis is the fact that, following the indications of space given by the proposed restorations, there is no room after Philemon's name for the epithet *πρεσβύτερος*, which we find in frag. i. The younger Philemon had not yet appeared upon the scene. It is no objection to the proposed dating, in my opinion, that a play of Philemon's was brought out as a *παλαιὸν δράμα* before his death. The *Φωκεῖς* must accordingly be assigned to the elder Philemon and no longer to the second of the name. The restored text should therefore be about as follows:

.....] Ἐρχιεύσιν
 [ὑπε Ἱερώνυ]μος(?)¹
 [Ἐπὶ] οὐκ ἐγένετο
 [Ἐπὶ π]αλαιῶι
] Φωκεῦσι Φιλή-
 [μονος ποη] Κράτης Ἀπε-
 [λευθέροις (?) ὑ]πε Νικόδημος
 [Μένανδρος Ἀ]νεψιοῖς
 [ὑπε Κάλλιπ]ος(?)
]ηραι
 [ὑπε]της
 [Δίφιλος Ἐμ]όρωι
 [ὑπε]ης
]ωι
 [ὑπε]ης
 [Ἐπὶ]οοι

¹ The fact that the name of this actor precisely suits the space given by the other restorations tends to confirm my dating. *Κάλλιπος* below is less certain, though I noted traces of a *π* before *ος*. The left margin is wrongly indicated in the *Corpus*. The name of the archon in the last line is as yet unknown. If my hypothesis concerning the date of this fragment is sound, then we should have an additional reason for believing that the name of one archon is lost, between 300 and 290, from the list furnished by Dionysius, and the last line may afford a clew to its recovery.

If I am right in thus interpreting and restoring these fragments; the chronological arrangement of the extant portion of this inscription, which we must now classify as the comic didascalie of the City Dionysia, was as follows: *f*, col. I, between 308 and 290; *h*, about 280; *f*, col. II, after 290 and also after *h*; *i* soon after 262; then the other fragments in the order indicated by Köhler, there being a large gap between *i* and col. I of *a*. If Τιμό[θεος] is to be restored in *g*, with Köhler, *g* would fall with the first group; but it might equally well be Τιμό[στρατος]. There are many reasons for thinking that *b* and *c*, and *c* and *d*, should not be joined together as in the *Corpus*, but the question is too complicated to be entered into here. But the small fragment *C.I.A.* II, 976 is to be reckoned among the fragments of no. 975. It is not only on the same blue Hymettus marble and in the same style of lettering as no. 975, but offers the same peculiarity in the grouping of the items as we have already observed in frag. *h* of the latter. The last line should be read, not ὑποκρί[της ἐνίκα], but rather ὑπο. Κρι[.... ἐνίκα].

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ON THE *DISTINCTIO VERSUUM* IN THE MANU-
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To us it seems to be the natural thing that in a poem each single verse should occupy a line by itself. In the early capital manuscripts of Vergil this is regularly the case. In the mosaic recently discovered in Africa, representing Vergil with two of the Muses, which antedates all of our Vergil manuscripts, the verses on the roll seem to be broken up into shorter lines.¹ Conditions of space, however, may have influenced the artist. While as a rule in inscriptions each verse has a line to itself, limitations of space often preclude this. In the epitaph of L. Cornelius Scipio Barbatius, — consul, 298, censor, 290, — a facsimile of which is easily accessible in Egbert, *Latin Inscriptions*, p. 232, GNAIVOD, the first word of the second Saturnian is only separated by a point from the preceding word, while the first word of each succeeding Saturnian is separated by a short space and a horizontal line from the one before. Six Saturnians are thus included in four lines. In a later inscription of L. Cornelius Scipio (see Egbert, p. 235), the Saturnians do not coincide with the lines, and no space is left at the end of each verse, only points being found, which, however, occur after each word of the inscription. On the other hand, in the inscription of L. Cornelius Scipio, — consul, 259, censor, 258 (see Egbert, p. 236), — each Saturnian occupies a line by itself. In the epitaph of Protogenes, however, thought by Ritschl to be the oldest example in Latin inscriptions of dactylic verse, the two

¹ See *Archäologischer Anzeiger*, Beiblatt zum *Jahrbuch des Archäologischen Instituts*, 1898, p. 114, figur 3.

hexameters are divided up between five lines with nothing to indicate clearly where the first hexameter ended. (See Egbert, p. 234; *P.L.M.E.* XLIX G.) So in an acrostic epitaph published in the *Bulletino della Commissione Archaeologica Comunale di Roma*, 1896, p. 62, each hexameter is divided between two lines. In the elegiac epitaph of the poet Diadumenos, published in the *Bulletino*, 1891, p. 73, the end of each verse is marked by a virgula whether it happens to coincide with the end of a line or not. On the other hand, in a Milan inscription, *C.I.L.* V, 6295 = Bücheler, *Carmina Epigraphica*, 1433, the virgula is only used where the metrical verse does not happen to coincide with the end of a line. More commonly, however, a space is left to indicate the end of the metrical verse. Occasionally where the beginning of a verse happens to come in the middle of a line, the initial capital is made larger than the rest. An example of this is seen in *C.I.L.* I, 1202. (For facsimile see *P.L.M.E.* LXXX C.)

In the majority of cases, however, even in the case of long verses, each verse has a line by itself. This can be seen by glancing through Bücheler's *Carmina Epigraphica*. There are of course many exceptions. Compare 236, where Bücheler notes '*graecanici videntur septenarii fuisse singuli binos in lapide versiculos implentes.*' See also 240, 241, 260, 295, 329, 373, 374, 375, 477, 489, 490, etc. In some cases it may be noted that the division of the verse falls in the middle of a word. Thus in 489, 5 *he|u*. In 614, 3, where *Nemesia deflet* closes the hexameter, a line begins with ADEFLET, the A of *Nemesia* being carelessly repeated.

Hettner, *Die Römischen Steindenkmäler des Provenzialmuseums zu Trier*, gives under n. 60 a facsimile of an inscription, quoting the first two verses of Lucan, Book VII. These, however, occupy five lines, with no point or other indication of verse-close. Under n. 374 is given a Christian inscription consisting of four dactylic verses. The end of the first verse falling within a line is separated from the second by an ivy leaf. Other examples might be given.

It is well known that even manuscripts of prose authors sometimes show a division into *κῶλα*. A noteworthy example of colometry in a Greek inscription of date not later than the fourth century has recently come to light; see *Rhein. Mus.* LII 1897, p. 461. The inscription was found at Lapethos, in Cyprus, and contains the Septuagint text of the fifteenth Psalm. The third line ends in ΕΡΓΑΖΟΜΕΝΟC, and as there was not space for the next word, ΔΙΚΑΙΟCΥΝΗΝ, this was placed on the next line by itself, being set in to show that it belonged to the preceding line.

We have a parallel to this in the Bembinus, of Terence, which belongs to a slightly later period. Wherever a verse is too long to be included within the marginal rulings, the part of the verse left over is put in the next line, but set in at a considerable distance from the margin. As the shorter verses, commonly designated clausulae, are set in in the same manner, there arises a liability of confusion, so that a careless and ignorant scribe might easily regard a distinct verse, *e.g.* an iambic dimeter, as intended to form a part of the preceding verse. To make this clearer it will be necessary to examine more particularly the general arrangement of the verses in the Bembinus, as this is a subject to which Umpfenbach has paid little attention. The Bembinus is a small manuscript. Although the leaves differ slightly in size, they average in height about 18 cm., in width about 15.50 cm. On the left of each page there are three marginal rulings or boundary lines | | | the first and second being about 9 mm. apart, the second and the third about 13 mm. apart. Now scenes in iambic senarii begin after the third ruling, whereas verses of greater length, as octonarii and septenarii, begin after the second. In this case the Greek notae for the characters are written between the first and second ruling, whereas in the case of senarii they come immediately before the third. In the Ambrosian Palimpsest of Plautus, according to Studemund, *Apographum*, p. xxxi, long lines begin at the extreme left-hand margin (according to the Alexandrian colometry, ἐν ἐκθέσει), while senarii are set in, and the cola of

cantica begin still further from the margin (*ἐν εἰσθήσει*). However, this is not as consistently carried out in the Ambrosianus as in the Bembinus, as some whole scenes of senarii are not set in at all. It will be noticed also by an examination of the Apographum of Plautus that where a verse is too long for the line, the portion left over is put on the next line and set in. Thus on fol. 214 *r* = *Casina*, III, 6, we find in the third line,

N O S M V L T A N T

which are the concluding letters of v. 722, an iambic octonarius, while two lines below we find an iambic dimeter catalectic (so smaller Goetz-Schöhl ed.), set in at the same distance.

I T A E R O M E O I R E A D V O R S V M .

It might well happen that a scribe, ignorant of metres, copying in minuscules might regard *ita*—*advorsum* as forming part of the preceding verse, or vice versa *nos multant*, as forming a clausula by itself. Many other examples of 'broken verses' might be given from Plautus, but we are now concerned with Terence.

Of the available facsimiles of the Bembinus, that of the English Palaeographical Society, Series I, pl. 135 = Bemb., fol. CXIII *v*, offers a page of iambic senarii, *Adelphoe*, 755–775, including all of Act V, Sc. 1. Although some of these verses are much longer than others, they are all set in, and begin at the same place after the inner ruling. This page also shows with what economy of space the Bembinus was written. Instead of leaving two lines vacant at the bottom of the page, after the close of the scene the scribe wrote,

Δ	D R O M O	B	D E M E A	A	S Y R V S
	P V E R		S E N E X		S E R V V S

A still more striking illustration is found at the bottom of fol. XLVII *v*, where we have one line of the scene-heading of *Hauton-timorumenos*, IV, 8,

B M E N E D E M V S A C K R E M E S

and at the top of fol. XLVIII *r*,

SENES II

Similarly fol. LVII *r* has at the bottom of the page,

A GETA T ANTIPKO B PKAEDRIA

At the top of fol. LVII *v*, a facsimile of which is given by Chatelain, pl. vi, we have

SERVVS ADVLESCENTES II

Chatelain's facsimile represents both fol. LVII *v* and fol. LVIII *r*.

The former contains *Phormio*, I, 4, 1-23 = 179-201, and is made up chiefly of long lines, octonarii and septenarii. There are, however, three short lines, which begin at an equal distance from the margin; namely, about 4 cm. The scribe may have considered 182 and 183 as constituting one long verse, but there was not room in the line for *commotus*, so that the verse is broken at that point, and COMMOTVS VENIT stands on a line by itself, whereas the editors write *Quid illic commotus venit?* So in P 182 and 183 are regarded as one verse, but *quidnam ille commotus venit* has a line to itself. *quidnam* is set in 3 cm. from the margin, but does not begin with a capital, as would be the case were it considered the beginning of a new verse.

191, an iambic dimeter, occupies a line by itself in A.

194, an unusually long verse, is broken after *revocemus*, so that

KOMINEMSTAILICOAKEM

forms a line by itself, which to all appearance might be taken as a separate verse, like 191. Umpfenbach remarks that 190 and 191 make one verse in P, but he fails to note that the words *quam* — *parat* are on a separate line as in A, set in 2 cm. from the margin, *quam*, however, not beginning with a capital. As to verse 194, P has *sanus es* at the end of preceding line, and begins the verse with *Domum*, continuing it to *hem*, which favors the arrangement adopted by Fleckeisen in his second edition.

Fol. LVIII *r* (see Chatelain's facsimile) includes *Phormio*, 202–223. 202–215 are long verses. Beginning with 216, we have iambic senarii, which are therefore set in. 206 is too long to be written in one line, and INMVTARIER is put at the very end of the line below, so that there would be no danger of any one regarding it as a clausula. Similarly, 209 is broken after *abeo*, which is also the case in F, although this is not mentioned by Umpfenbach. 211 is broken after *propemodum*, whereas in F it is broken before this word.

In plate 9 of Zangemeister and Wattenbach we have a facsimile of fol. XC *v*. This includes *Hecyra*, IV, 3, 10–4, 16 = 616–638. 620 and 621 are thus written:

EMEDIOAEQVOMEXCEDEREESTPOSTREMONOSIAMFABVLAESVMVS
PAMPKILESENEXATQ·ANVS

PAMPKILE begins 3 cm. from the margin. There was not room for it in the preceding line, which, however, is made to include *sumus*, which properly belongs to 621. It may be questioned whether the scribe did not intend to regard 620 and 621 as making one long verse. Umpfenbach says that in P 620 and 621 make one verse, but he neglects to mention that the verse is broken after *fabulae*, and that *sumus* in the next line begins with a small *s*. Here the division of P is actually better than that of A. We may conjecture that P, or its archetype, followed a manuscript in capitals, in which the line beginning with SVMVS was set in, but the scribe considered it merely to be a part of the previous verse. The new scene at the bottom of this page in A is in iambic senarii, and all the verses are set in from the margin.

Plate 8 of Zangemeister and Wattenbach gives fol. LIV *r* of the Bembinus, including *Phormio*, Prologue, 18–34, iambic senarii, which furnish nothing worthy of remark.

Before considering further the *distinctio versuum* in the Bembinus let us examine briefly the available facsimiles of other important Terence manuscripts.

Chatelain, pl. xi, gives fol. 13 *r* of G (Vaticanus, 1640)

beginning with *quid mihi*, *And.* 966, to the end of the play, then the Argument and Prologue of the *Adelphoe* as far as *de verbo* in v. 11, occupying thirty-two lines of text. It will be noticed at once that it is written as prose, but a closer inspection reveals the fact, which Umpfenbach does not even hint at, that capitals are found at the beginning of nearly every metrical verse, so that the manuscript from which it was copied must have had the metrical *distinctio*. Thus, of the words which begin 967-981 of the *Andria*, all but four have an initial capital. Of the words beginning the twelve verses of the Argument all but one (*ut* in 11) have a capital, while of the eleven verses of the Prologue of the *Adelphoe* the initial capital is preserved in every case.

Chatelain, pl. x, 2, gives a facsimile of a page of D (Victorinus or Laurentianus xxxviii, 24) from *miser*, *Phormio*, 997, to *obiit* in 1019. This also is written as prose. With each new rôle a capital is used, which renders difficult the restitution of the original *distinctio*. It will be noted, however, that the capitals beginning 1008 to 1014, in which portion there are not many changes of rôle, are regularly preserved. We shall see later that this is true of a considerable portion of this play, while in other portions it is clear that the archetype had a very irregular *distinctio*.

Chatelain, pl. vii, 1 and 2, gives a facsimile of two pages of P (Parisinus, 7899). 1 = *Andria*, I, 5, 1-10 = 236-245. This is a good example of a canticum. It will be noticed that the initial capitals of the verses are placed within marginal rulings. There are only eight of these, however, for the ten verses of our received text, inasmuch as *miseram* — *audio* (240) is considered a part of 239, not noticed by Umpfenbach, and *quod* — *funditus* (244) a part of 243. Moreover, 236 is broken after *hoccine*, 237 after *non*, 239 thus, *o|portuit*; 242 thus, *-in|mutatum*; 243 thus, *miserum*; 245 after *infelicem*; *quemquam*, which ends the verse in P, being on a separate line. In each case the remainder of the verse is set in at a considerable distance from the margin. Mr. Hoeing will show in this

Journal how closely the *Dunelmensis*¹ O agrees with P in these particulars.

Chatelain, pl. vii, 2 = *Adelphoe*, 364–374. Here we have all short and unbroken lines, the *distinctio* agreeing with that in Umpfenbach, except that at the beginning of the new scene, 364, *Omnem* — *seni* constitutes a verse by itself. Compare also the English Palaeographical Society, pl. 36, where vv. 20–34 from the beginning of the *Andria* in P are given.

Chatelain, pl. viii, gives a facsimile of F (Ambrosianus) *Adelphoe*, 362–376, *i.e.* nearly the same verses given of the Parisinus in pl. vii, 2. It will be seen that the general arrangement is the same as in P. 364 extends from *Eum* — *velle*, and, at the beginning of the new scene, *Omnem rem modo seni* forms a complete line. Here, too, the capitals are included within the marginal rulings, and there are no capitals except at the beginning of the verse.

Chatelain, pl. ix, gives a facsimile of C (Vaticanus 3868). *Phormio*, V, 9, 22–63 = 1011–1053. This manuscript is written as prose. It will be noticed that there are no capitals in the text of this page, hence we have no means of restoring the original *distinctio*. I shall not, therefore, speak again of this manuscript, which I have carefully collated. I will only add that capitals are so rare in it that the existence of one gives rise to the suspicion that it is due to a corrector. Thus, in *Eun.* 102, the proper reading is *hac lege tibi*. C has *Vbi*, but the *V*, as Umpfenbach remarks, is *in rasura*, and we cannot doubt that the original reading was *tibi*, and indeed this is the reading of B, which was probably copied from C before the correction was made.

Chatelain, pl. x, 1, gives a facsimile of B (Basilicanus), *Andria*, I, 1, 57–95, from *heus*, 84, to *visa est*, 122. This is written as prose, but there are many capitals. As C, of which B is supposed to be a copy, has no capitals, the question may arise: how does B happen to have them? A closer inspection will reveal

¹ In the remainder of this article I designate by O the *Dunelmensis* which was not used by Umpfenbach.

the fact that the capitals mark the beginning of a new sentence or a new rôle, not of a new verse, so that they are probably due to the general habit of the scribe, and not taken from his original.

We have thus seen from this cursory examination of the fac-similes that C and B throw no light on the *distinctio*, that D and G may give more information than would be inferred from Umpfenbach's statements, while the facts in regard to A, especially in its relations to P, are not as clearly brought out as could be desired. Let me illustrate this assertion. Fol. X^r of the Bembinus contains *Eun.* 193-215. The three short lines, 209, *rogitare — sit*; 213, *dabo — imperas*; 215, *aemulum — pellito*, are all set in at a distance of 1.50 cm. from the inner ruling, while the other long lines begin at the second ruling. In P 208 and 209, as Umpfenbach remarks, make one verse, written, however, on two lines, the second of which begins with *est tibi*, set in 2 cm. from the margin and without a capital. It is possible that the scribe of A thought 209 *rogitare — sit* was simply the completion of the previous line, as also 213 and 215.

The scribe of P regards *Quin — imperas*, 212-213, as a separate verse, and begins it with a capital, and so also *Et — pellito*, 214-215, in both cases a wrong *distinctio*. In *Eun.* 256, A has MI, not MIHI, and 256 and 257 were probably regarded as one verse. COQVI, etc., on the line below, begin 2.50 cm. from the margin where CONCVRRVNT begins. In *Eun.* 350, AVT is placed at the beginning of the line. There was not room for it at the end of 349. Fleckeisen² and Dziatzko omit it. On fol. XXXIV^r, the short line, *Haut.*, 178, *Quicum loquitur filius*, begins at the same distance (3 cm.) from margin as in 192 the words *quem minus crederes*, which really form only the end of the verse. In P 177 and 178 are considered as one line, which is broken after *te*, *excruciat* being set in.

In fol. XLII^r, the short line, *Haut.* 566, *Nam istaec quidem contumelia est* is set in 4.50 cm. from the margin, and probably was considered as a part of 565, as in P. In PF and O *nam — est* occupies a line by itself. Umpfenbach does not indicate this for PF.

Of *Haut.* 894, Umpfenbach says, *Versus dissectus est post GNATVS.* The same remark applies to P. In A *NIHIL* is about 4 cm. from margin; in P about the same distance. The verse is broken at the same point in O. In *Haut.* 1005, in A *INMENTEM* is set in 6 cm. from margin. Umpfenbach says that 1004 and 1005 make one line in P, but the line is broken after *venire*, as in A, and *in mentem* is set in 2.50 cm. from margin. Practically APFO coincide here.

In *Phormio*, 163, *AMOREABVNDASANTIPKO* begins at 7 cm. from the margin, and fills out the rest of the line. I believe it was considered by the scribe as belonging to the previous verse. In P the verse is broken one word earlier. *dolet* is set in on the next line, but does not have a capital. In F the division is made at the same place, but *dolet* has a capital.

Of *Phorm.* 322, Umpfenbach says "*EXCRIMINEKOC versum per se implet* in A," but it is set in 7.50 cm. from the margin, as there simply was not room for it in the preceding line. On the other hand, for AK, which is placed at the beginning of *Phorm.* 326, there was plenty of room at the end of the preceding line. The same is true of EI, which is placed at the beginning of 491, as also in FPO. I may mention here that in *Phorm.* 480, the verse is broken in F (but not in PO) after *adveniat*, exactly as in A. Of *Phorm.* 529 and 530, Umpfenbach says "*In P in unum contracti sunt.*" This is true, but 530 is written on a line by itself, and *is*, which is set in 2 cm., does not have a capital. *Phorm.* 728, *QVID — KAEC*, makes a very long line in A, namely 13 cm. There was not room for *REFERAM*, which is set in 3 cm. on the line below, and made a part of 729. Umpfenbach says that in PF 728 and 729 make one verse, but the verse is broken in P, as in O, after *consilia*, in F after *misera aut.*

In *Hecyra*, 261, the verse is broken in A after *GRAVITER*, and *LATVRVM* is set in 4 cm. on the next line. Umpfenbach states incorrectly *dissectus est post LATVRVM.* In *Hec.* 319, in P, as in A, the verse is broken after *quam ob rem.* In F the break comes one word later, after *Nescio.*

In *Hec.* 612, *FERANTVR* begins 4.50 cm. from the margin. In

P *feruntur* (corrected to *ferantur*)—*pater* is written on a separate line, but *feruntur* begins with a small letter, and was considered a part of the previous verse. In *Hec.* 731, ADGREDIAR begins also 4.50 cm. from the margin. In PO *adgrediar*—*salve* is written on same line with 730. In F *Adgrediar*—*Laches* makes a verse, and the next line has *Credo*—*Bacchis*.

In *Hec.* 767, A has POTIVS written immediately after the inner ruling, so that POTIVS—FACIAS was regarded as a separate verse, whereas in P these words, although occupying a separate line, were considered a part of the preceding verse. The short verse, *Adelphoe*, 158, EGO—OMNIBVS, is inserted 3 cm. from the margin, but so is ITERVM—VAPVLET, which the editors, except Fleckeisen, treat as the close of 159. So far as A is concerned, however, either short line might be considered as part of the preceding verse. In P we have 157 *Quid*—*ego*, and on the next line *adereo*—*omnibus*, *adereo* being set in and without capital. Then follows 159, *Quamquam*—*vapulet*. It may be noted that in F, as in A, 159 is broken before *iterum*. In *Adelph.* 303, VIS is set in 3.50 cm. from the margin. In P 302 and 303 are considered as one long verse, which is, however, broken after *vis*, and *egestas* is set in 3 cm. Similarly O. *Adelph.* 523, in A is extended to PROPEST, but on the next line, QVOD, is set in 4.50 cm. In P 523 and 524 are written all on one line. In F they constitute one verse, which, however, is broken before *prope est*, so that in a way the division in F is better than that in A. In *Adelph.* 969, Umpfenbach notes "*In FP versus exit in Tu vis*" (so also O). He does not note that in A on the margin the first stroke of a V can be made out. Probably 970 began in A with VIS.

Many other instances might be cited of Umpfenbach's inadequate description of the disposition of the verses in A, but these must suffice. It is to be hoped that the Vatican authorities will sometime publish a complete facsimile of this important manuscript. A more exact collation may be expected soon from the labors of Professor Hauler and Dr. Kauer. I will only add here a note on *Andria*, 814. Of *Andria*, 810–832, only

a few letters varying in number can be read at the ends of the lines, found on the scrap of parchment preserved = fol. 1, verso. Umpfenbach does not attempt an accurate collation of this part of the manuscript. I have made an apographum of what remains of the end of the *Andria*, from v. 787, but I cannot reproduce it here. As vv. 810–819, the close of Act IV, Sc. V, are all iambic senarii they must have begun in A at the same point, *i.e.* after the third or inner ruling. The strip of parchment preserved is about 3 cm. wide at the top, and 2.50 cm. wide at the bottom, and about 15 cm. long. Evidently the number of letters to be read at the end of each verse would depend upon the length of the verse. In *And.* 814, all our existing manuscripts (including O) read *Grandiuscula* (*crandiuscula* G), which can only be scanned with synizesis. Fleckeisen accordingly reads in his first edition,

Grandicula iam profectast illinc, clamitent.

in which he is followed by Umpfenbach, Dziatzko, and Spengel. In his recent edition he reads,

Grandicula iam profectast illim, clamitent.

Hauler makes a good defence of *grandiuscula* in Archiv V, 294, citing examples of parallel usage from Augustine. In the *Glossarium Terentianum*, published by Goetz, Jena, 1885, we find, however, the gloss *Grandicula : nubilis*, which must refer to our passage. Goetz thinks this glossary was excerpted from a codex written in capitals, so that we have warrant for supposing that *Grandicula* must have been found in some early manuscript of Terence. Now 813, following Umpfenbach's reading, has 41 letters, 814, 38 letters. Reading *grandiuscula*, 814 would have 40 letters (or with *illim* for *illinc*, 39). In the manuscript, 813 projects beyond 814, three letters. All that can be read is

NAMFERE	813
ITENT	814

of 815, which contains only 32 letters, no letter appears; of 816, containing 34 letters, only the final T of LIBET can be read.

There is, therefore, a possibility that the difference in the length of the lines is due to the fact that A had GRANDICVLA. The probability is somewhat vitiated by the fact that A may have read DEFENSOREM EIVS, thus giving 813, 43 letters. *eius* is the reading of the other manuscripts and also of the Monacensis, 14420 (cf. Schlee, *Scholia Terentiana*, p. 19). Umpfenbach is wrong in assigning *ei* to P. P has *defensorem ei*⁹ = *eius*. Moreover, of the verse above, 812, which has only 36 letters, we can read at the end BITROR. Certainty, of course, in such a matter cannot be attained.

DISTINCTIO VERSUUM IN G

The care with which the capital marking the beginning of a verse is preserved in G varies very much in the different plays, and exact statistics are difficult to make, as in the case of certain letters it is not easy to decide whether the letter, which would mark the beginning of a verse, was intended to be a capital or not. Wherever *S* has the form *s* at the beginning of a word, I have considered it a capital even though it be small, as initial *s*, where there is no reason for its being a capital, has almost invariably the form *f*. Thus v. 588 of the *Andria* begins with *simulavi*, but 605, an iambic dimeter, begins with *fed*, showing that as in PO it was considered a part of the previous line. On the other hand, in *Adelphoe*, 486, *Scio* begins with a capital, showing that it did not, as in FP, close the preceding verse. It is to be remarked also that here and there in G, but not uniformly, the beginning of a new rôle is also marked by a capital. It is significant, however, that out of 981 verses of the *Andria*, all but 191 are marked by the existence of an initial capital, while in the *Adelphoe* all but 380 out of 997 are thus marked. In the *Eunuchus* the capitals are not at all well preserved, the number of verses, in which the initial capital is wanting, almost equalling that in which it is preserved. In D, also, the correct verse-division is rarely preserved in the *Eunuchus*. Of the 779 verses of the *Phormio* preserved in G,

only 402 are marked by initial capitals. Of the *Hautontimorumenos*, G has only vv. 314–1049, and out of these 736 verses, 556 are marked by an initial capital. Of the *Hecyra*, G has only vv. 195–309, but here the division of the archetype might easily be restored, as the initial capital is missing only in five verses. It would take too long, therefore, to show to what extent in the several plays the restitution of the original *distinctio* may be safely attempted. I shall select only a few instances interesting as showing an agreement or disagreement with A or P. *Andria*, 176, *Verebar quorsum evaderet* formed a verse by itself (not so P, see below p. 122). 240, *Miseram — audio*, a verse by itself (in P considered part of 239). 244, *Quod — funditus*, and 252, *Nam — ah*, each a verse by itself. 246 may have formed part of 245, as *pro* does not have a capital. At the end of 256, *Aut* has a capital, so that it probably began the following verse as in P (so also Fleckeisen², Dziatzko brackets), 535. *Nubere* probably began verse as in P. 561, *Et* at the end has capital, so that it probably began 562. It is bracketed by Dziatzko and omitted by Fleckeisen. 590, *Hem* has capital followed by *num* without capital, so that *Hem* may have begun 591. In 606 ff. there are some indications that the *distinctio* of the archetype was irregular as in P. *mihi*, 608, does not have capital, but *Tam* does, also *Me* in 609, but not *sed* in 610. 616 probably began with *Visus*, *ohe* having been at the end of 615, as in P, and the verse ended with *miserum* as in P, for *Impeditum* has a capital. 629, *In* has capital and probably began following verse, as in PD. 636 began probably with *Proxumus*, as in P, and was extended to *fides*, the next verse beginning with *Si* and extending to *verentur*, as in P. 839 began *At vero*.

Eunuchus, 237. *Hem* has capital and probably stood at beginning of 238, as in P. 243 began with *Omnia* (not so A). 291 has *Occidi neque*, compare A. In 299–302, the capitals show the verses to have been *Hic — amare*, *Ludum — alterum*, *Praeut — dabit*, *Vt — est*. 726 seems to have begun with *Inter*, *turba* having been at the end of the previous line. 747 seems to have begun with *Domi*. Compare A.

Hauton-timorumenos. — 566 the clausula *nam — est* probably was added to 565 (so P). 582 probably began with *Quin*, as in AFP. 1004 and 1005 formed one verse, as in P. 1011 began with *Oh*, as in FP (Phas *O*) Umpfenbach brackets. For monosyllables standing at the end of a verse in Terence, see Fabia, *Revue de Philologie*, vol. xvii, 29 ff.

Phormio. — 485 *Dorio* is treated as part of the following line, as in AFP. 491 began with *Ei metuo*, as in AFP. 728 and 729 were counted as one verse, as in FP.

Adelphoe. — 38 seems to have begun with *Vaha*. In AFP *vah* forms the end of the previous verse. 81 *gaudemus* formed part of preceding verse, as in AFP. 303 began with *Vis* (not so P). 316 and 317 made one verse, as in P. 376 probably began with *Atque*, as in A; Dziatzko and Fleckeisen both omit it. 461 probably began with *O te*, as in P. 486, *Scio* has capital, and probably began verse (not so P). 725, *agere* does not have capital, and may have gone with preceding verse, as in A. 765, *abi* does not have capital (it is omitted in A), but *Sed* has.

Some correspondences with D are given in the treatment of that manuscript.

DISTINCTIO VERSUUM IN D

Umpfenbach's description of D in regard to the *distinctio versuum* is singularly inadequate.¹ He says, p. xxi, "Versuum distinctio servata est in prologis constanter, raro in comoediis: sed initiales magnae versuum in archetypo descriptorum memoriam nonnumquam revocant." As a matter of fact, the Prologue of the *Phormio* is written as prose, as is the whole of that play. The Prologues of the *Hauton-timorumenos* and *Adelphoe*

¹ For a further description of this manuscript, see E. Gutjahr, *Ber. d. sächs. Gesellschaft d. Wissenschaft*, 1891, Phil.-Hist. Cl. pp. 273 ff. Cf. F. Schlee, *Rhein. Mus.* 46, pp. 147 ff., Dziatzko, *N. Jahrb.* 1894, p. 465, and Hauler's edition of *Phormio*, p. 187. For the marking of the capitals in this manuscript, I am indebted to Dr. Gordon J. Laing, one of the Fellows of the School in Rome (1896-97), who used the text of Dziatzko. I made myself a subsequent examination of the manuscript.

are also written as prose, while the remaining Prologues are written as verse.

The order of plays in this manuscript is *Andria*, *Adelphoe*, *Eunuchus*, *Phormio*, *Hauton-timorumenos*, *Hecyra*. Taking the plays in this order, the division into prose and verse form is as follows: *Andria*, prose 28-59, 98-179, 384 *Ne nega* to 453, 846 *o noster* — 903, 947-981. It should be observed, however, that 98-179 (fol. 4 and 5), 384-453 (fol. 12 and 13), and 846-903 (fol. 25 and 26) are written by a later hand of the eleventh century from a different archetype on inserted leaves. See Schlee, *Rhein. Mus.* 46, p. 148, whose statement is confirmed by my own observation. The remaining portions are written in the form of verse; *i.e.* about 705 lines are written as verse and 276 as prose, but of these 276, 210 lines are due to insertion by a later hand.

Of the *Adelphoe*, 1-667 and 684-695 *uxorem* are written as prose, the rest as verse; *i.e.* 679 lines as prose, 318 as verse. Of the *Eunuchus*, 1-1033 have the form of verse, 1034-1094 of prose. The *Phormio* is written entirely as prose. Of the *Hauton-timorumenos*, 1 — *aetate* 115 are written as prose, the rest as verse, with the exception of 466-517 *perii*, which are inserted by the eleventh century hand. Finally, the *Hecyra* is written entirely as verse. We may therefore begin with this play to test the accuracy of the verse-division.

HECYRA

The *Hecyra* begins at the top of fol. 143 *v*¹ and concludes on fol. 165 *r*. In the *Periocha* the verse is divided as in Umpfenbach, with the exception that 3 begins with *Obtulit*, 9 with *Non vult*, 10 with *Dum se*. A similar division exists in F, but not in P and O.

Both Prologues exhibit the correct metrical division throughout. On the other hand, in Act I, 1 = 58-75 (fol. 143 *v*), the

¹ These numbers correspond to the numbers at the bottom of the leaf in the manuscript, while Schlee has followed numbering at the top. In speaking of the inserted leaves above, I have given his numbering.

verses are longer than they should be, the 18 verses being included in 13 lines, not a single one of which shows the proper metrical division. 76, *Senex—dicito* is correct, but from 77–127 inclusive the *distinctio* is entirely wrong, as can be seen from the fact that these 51 verses are written on 37 lines, each one of which begins with a capital.

Verses 128–146, on fol. 145 *r*, are all correct iambic senarii, so, too, 147–161, but the correct metrical division is not given from 162 to 197, the end of Act I. From 198 to the end of the play, however, the versification is remarkably well preserved, and is almost without exception correct. The only verses which require comment are the following: 213 extends from *Tu sola* to *Egone*, which begins with a capital. Here D agrees with A, which Umpfenbach omits to note. 284 begins with *Cui*, so A and the other manuscripts. 366 is omitted by D¹. 520, *dicam* to *scio*, was considered a part of previous verse, while in P and O *Scio* begins 521. 526–528 are wrongly divided; 526 ends in *taces*, 527 in *perii*, and 528 in *obsecro* (so, too, F; compare the irregularity in A). 730 and 731 make one verse, so P and O, but not F. 743 ends with *ah* as in other manuscripts. Dziatzko begins 744 with *Ah*. Fleckeisen² puts 749 (with *Ah* at the end) before 744.

EVNUCHVS

Of the *Eunuchus* the first 1033 lines are written apparently as verse, but here it will be found that the metrical division is much less accurate than in the *Hecyra*. The *Eunuchus* occupies fol. 59 *r* to 89 *v*. The Periocha is omitted and 30–45 of the Prologue precede 1–29 (25 and 26 being left out by D¹). With 1034, fol. 88 *v*, a finer character is used and the verses are written as prose. The Prologue is written correctly, but from 46 to 1033 it is only by accident that the metrical division coincides. The beginning of the verse may coincide, but not the end. Only in the following verses is the metrical division the same as in Dziatzko: 46, 47, 104, 110, 119–121, 148, 188, 189, 196, 197, 207 (208 and 209 make one verse as in P and O),

210, 214, 229, 232, 233, 246, 253, 289–291 (at end of Act II, 2), 308, 316, 319 (363 begins *Ac dabo*), 398, 457, 467, 476, 485, 486, 516, 530, 531, 535–538 (end of Act III, 3), 557, 596, 626, 684, 685, 711, 712, 796, 840 and 841 (beginning new Sc. V, 2), 848, 849, 905, 918, 943, 949, 971 (beginning of Sc. V, 5), 985, 998–1001 (end of Sc. V, 5), 1031 and 1032, *i.e.* about 62 out of 1033 verses happen to coincide. From 1034 on the lines appear as prose, and but few capitals are used, which would indicate the beginning of a verse in the archetype. Such capitals are found at the beginning of nine verses, 1036, 1041, 1042, 1048, 1049, 1054, 1067, 1084, 1093. It ought to be noted, however, that a few capitals are found at the beginning of new rôles, not generally thus marked, and also at other positions in the verse, so that we may say that for the whole of the *Eunuchus* not much is to be gained from D in respect to the *distinctio*.

HAUTON-TIMORVMENOS

The *Hauton-timorumenos* occupies fol. 117 *v* to fol. 141 *r*, and only 161 verses are written so as to give the appearance of prose. The Periocha and Prologue (1–52) are both written as prose, but the capitals regularly preserved mark the beginning of verses, and would enable us to restore the *distinctio*. So, too, 53 to *aetate* in 115 are written as prose on fol. 118 *v* and fol. 119 *r* and *v*, but the capitals marking the beginning of lines are preserved with two or three exceptions. The beginnings of new rôles also have capitals usually. *Mihi*, in 81, has a capital and may have begun 82 in the archetype, as *si*, the proper beginning of 82, has no capital. The beginnings of 89 and 91, *adpone* and *laboris*, lack capitals. In 116 to 406, written as verse, the metrical division is quite arbitrary, but happens to coincide with the correct *distinctio* in the following verses: 140, 146, 161, 177, 188, 189, 200–204, 211 and 212 (end of Sc. I, 2), 229 (end of Sc. II, 1), 254, 265–268, 335, 336, 381–406. 398 begins with *Vah*, as in PFO and the archetype of G. 407–409, at the end of Act II, 4, are written as two verses *Salvum — maxime, Animo — senex*. 410–465 (iambic senarii) are correctly written

as verse, the only thing to be noted being that 430 begins with *Atque*, *valet* being added to the previous line. 466–517 are due to the later hand (see above p. 107) and are written as prose, the capitals at the beginning of verses being preserved only in the following verses: 469, 473, 476, 478, 483, 486, 489, 494, 498, 507, 512, 514, 516, all of which begin new sentences. It may be noted, however, that in 480 *Hui* is begun with a capital. Dziatzko keeps this at the end of 480, but Fleckeisen emending to *huic* puts at the beginning of 481, which may have been the position of *Hui* in the archetype of this part of D.

Fol. 129^r begins with *Num nam*, in middle of 517, and from here to the end of the play the manuscript presents the appearance of verse, each line beginning with a capital, but the metrical division is very arbitrary, corresponding only in the following verses to that of Dziatzko, 518, 535, 561 (end of Sc. III, 2), 562, 575–583, long verses, 594, 626, 634–653 (trochaic septenarii). 654 ends with *adulescentulam*. *Hem* begins 655 (cf. above, *Hui* 481), 664 and 665, 668–682 (iambic octonarii and septenarii), 711, 722 (end of Sc. IV, 3), 732–735, 739–741, 804 (end of Sc. IV, 5), 873 (end of Sc. IV, 8), 874–883 (trochaic septenarii), 934, 950, 957, 958, 980, 981, 1003 (beginning Sc. V, 3), 1012, 1013, 1025–1027, 1043, 1044 (end of Sc. V, 4), 1045, 1046, 1057, 1058. For the most part the verses are a little longer than the metrically correct verses, *i.e.* the number of lines is considerably less than it would be with a proper metrical division. Summing up, in the portions written as verse, only about 104 out of 900 verses show correct division.

ANDRIA

It is quite probable that nearly the whole of the *Andria* in the original form of D was written as verse, for, as we have seen above, of the 276 verses written as prose nearly 210 are due in the existing manuscript to a later hand, *i.e.* 98–179; 384–453; 847 *o noster* — 903.

In 28–51 (Act I, 1) the capitals are, for the most part, well preserved. 31 seems to have begun with *Tibi* in the archetype.

In 34 *fide* has no capital, but *Expecto* has (so G), and there are no capitals in 36–38 (so also G). In 50 *Et* after *cognosces* has a capital. 52–57 and 59 have no capitals. In 98–179, which are copied from a manuscript of a different class, capitals marking the beginnings of lines are not well preserved, not more than 18 verses being thus marked, while other capitals occur at the beginning of new rôles and sentences. The same is true of vv. 384–453, in which not more than 19 verses have their beginning indicated by a capital, and of these 404, 412, and 432 begin scenes. For this section the capitals are preserved in G much more uniformly.

In 847–903, by the same later hand, the capitals are rare, and seem to have no especial significance for establishing the original *distinctio*. In 857 *Veritas* has a capital, so that *tristis* may have been included in the previous line, and 857 may have extended to *adportas*, 858. *Nihil* has a capital.

947–981, the concluding lines of the play on fol. 30 and fol. 31, are also written as prose, but by the regular hand, and here the division of verses of the archetype could be restored by the capitals, which are preserved for the beginning of every verse except 949.

To take up now the portions of the *Andria* written as verse, namely 1–27, 60–97, 180–384, 454–846, 904–946. Verses 1–27 and 60–97, iambic senarii, are all correctly written, except that 72 begins with *Egregia*, *coacta* having been included in the previous line. In the next verse section, 180–384, the metrical division is very arbitrary, the evident intention being in many cases to fill out the space rather than to give metrically correct verses. Thus 180–182 are regular, as in Dziatzko, containing each 41 to 44 letters. 183 begins with *Astute*, and extends to *neque*, with two notae and 37 letters, but *provideram* would have extended the line to 47 letters. 185 begins with *Provideram*, and goes to *ad me*, 34 letters and three notae. The verses are then incorrectly divided up to 189, but 190–193 are correct. From here to 227, end of Act I, 3, not a single verse is given correctly, whereas the whole of Act I, 4 = 228–235, is correct.

In the long scene, I, 5 = 236-300, 236 is broken after *hocinest*, as in P, and the only verses which are correctly given are 237-239, 247-253, 258-262, 271-279, 287, 293, and 298. So in Act II, 1 and 2 (301-374) the only verses correctly given are 312, 313, 331-338, 344-350, and 353-374. 375-383 are correctly given. With *Ne nega* 384 a new leaf begins written as prose. 454-458 are correctly given in verse form. In III, 1 (459-480) the only verses correctly given are 468, 471-477, and 480. In III, 2 (481-532) the following are correct: 481-483, 493-496, 501-503, 506-513, 529, 530. In III, 3 (533-580) the following are correct: 536, 551-553, 567. In 580 *Atque* — *exire* makes one verse.

In III, 4 (581-606) 581-586 are incorrectly divided. 587-606 are correct, except that *Hem* at the end of 590 is made to begin 591 (so G, see above, p. 105). In III, 5 (607-624) the only verses which coincide with Dziatzko's arrangement are 611, 614, 617, 619-621, 623, 624; but 615 is the same, except that *Oh* at the end is made the beginning of 616, as in Umpfenbach. The opening lines of the scene show considerable correspondence with the arrangement in P and O. Thus 1, *Ubi* — *perdidit*; 2, *Perii* — *quandoquidem*; 3, *Tam* — *meas*; 4, *Me* — *fero*; 5, *Sed* — *auferet*; 6, *Posthac* — *malum*. (For G, see above, p. 105.)

IV, 1 (625-683) is written with remarkable correctness; the only exceptions to be noted are that *Heus* is put at the end of 635 (so PO and the archetype of G), and the next verse goes from *Proxumus* — *fides* (so PO); then follows *Si* — *opus est*, *Illuc* — *verentur*, which is the division of PO, where, however, *Illuc* does not have a capital, and the two lines are intended to represent one verse. (For G, see above, p. 105.) 663 is divided into two lines before *Interturbat*, whereas in P and O the division comes after *Inter*. IV, 2 (684-715) shows also great correctness. 686, however, ends with *offers*, and the next line begins with *Quid est*, which in P and O occupies a line by itself. 708 is broken after *dicam*. 713 ends with *Age veniam*, and 714 begins with *Si quid*. 715 being too long, is broken before *adéro*.

IV, 3 (716–739) is correct throughout. IV, 4 (740–795) is also remarkably correct, but 752 ends with *unum*, and 753 begins with *Praeter*, as in PO. 755 ends with *meretrix* (so perhaps the archetype of G, as the following word *Ab* has a capital). IV, 5 (796–818) has every verse correct. In V, 1 (820–841) *desinent* is put at the beginning of 838. In V, 2 (842–871) only 842–845 are written as verse and correctly. 846 extends from *Erus* to *Simo*. The next page, fol. 26 *r*, begins with *o noster*, 846. V, 4 (904–956) 904–912 *pollicitando*, at bottom of fol. 27 *v*, have each verse divided between two lines, only the first of which begins with a capital, thus: 1, *Mitte* — *quaevis*; 2, *causa* — *monet*; 3, *Vel* — *verum est*; 4, *vel* — *Glycerio*; 5, *Andrium* — *est*; 6, *salvus* — *Chremes*; 7, *Quid* — *insolens*; 8, *evenit* — *Simo*; etc.

So fol. 28 *v* begins with 912, *Eorum* — *es*, and all the verses except 913, 916, 917, 923, are divided between two lines, with capitals, however, only at the beginning of each regular verse.

Fol. 29 *r* has 924–935, 12 verses, divided among 19 lines, the capitals being not always correctly placed.

Fol. 29 *v* has 936–946, 11 verses, divided among 19 lines, with some irregularities, thus: 939 has *Sane* — *gaudeo*; 939 *b*, *credo* — *scrupulus*, the next line beginning with *etiam*.

ADELPHOE

The *Adelphoe* begins on fol. 31 *r* with the *Periocha* and extends to fol. 59 *r*. It is largely written as prose; so 1–667 and 684–695. The *Periocha* has the beginnings of each verse marked by a capital. Verse 12 began with *A se vitiatam*. So in the Prologue only 2, 8, and 10 lack the proper capital. In I, 1 (26–80) the only exceptions to be noted are that 38 began with *Vah*, as in A and the archetype of G. Perhaps *aut* was at the end of verse 55, as in PO and F. Neither in G, nor D does it have a capital. *Gaudemus* in 81 is tacked on to 80, as in AFPO.

Act I, 2 (81–154). In 81–95 and 113–153 every line is marked by its proper capital, but in 96–112 there are some irregularities. 97 seems to have begun with *Micio*, 99 with

Quod ipse, 102 with *Neque potare* (so G). The only capitals found in 103–111 are *Nos* 104, *Iniurium* 106, *Et* 107 (so G), *Dum* 108 (so G), *Expectatum* 109, *Tamen* 110. If these, as is probable, show the beginnings of verses in the archetype, the *distinctio* here was very irregular.

Act II, 1 (155–208). The capitals are well preserved. To be noted, however, these exceptions: In 159 we find *Non committet* (so G), showing that 158 included *Ego — scelestus*. In 166 we find *Indignum* (so G), and the verse, as in FP, probably included *Indignum — modis*.

Act II, 2 (209–253). The capitals are uniformly preserved. I note only that 214 is omitted by D¹. 226 seems to have begun with *Hoc scio*. In 252 *faciam* has no capital (so G). In Act II, 3 to the end of III, 1 (254–298) the capitals are uniformly preserved, showing the same *distinctio* as in Dziatzko. The same is true in general of III, 2 (299–353), where I have only to note that *Ah* seems to have begun 310, while the short line, 317, *ut — dispergat viam*, seems, as in G, to have been joined to 316, as was also the intention in P and O. So 329 seems to have begun with *Ah me miseram*.

III, 3 (355–445). Capitals very well preserved. I note only that 376 began with *Atque* (so GA), which Fleckeisen² and Dziatzko both omit. In 390 *dementia* does not have capital, but *Inepta* does, and perhaps began 391, where *patris* has no capital (so also G).

III, 4 (447–510). Capitals regularly preserved to 505 (506–510 are written as verse correctly). The only things to be noted are that in 466 and 467 there is a change in the order (see Umpfenbach) and 488 was omitted by D¹.

III, 5 and IV, 1–3 (511–609) show a remarkable preservation of the initial capitals. I note only that in the trochaic dimeter, 524, *quod — abesset, quod* is without capital, indicating that the line was joined to the preceding, as in FP.

IV, 4 (610–635). This scene begins with a canticum. The capitals from 610 *a* to 617 are *Discrucior*, *Vt*, *Membra*, *Pectore*, *Quo*, *Tanta*, *Sostrata*, *Nam*, showing a coincidence with A in

arrangement except in the last verse. G also here is in perfect agreement with D, except that *Quo* has not kept its capital. The rest of the scene is regular, but at the end, 635, *prodit — huc* seems to have been joined to the preceding verse. (So also G.)

IV, 5 (635–712). 635–667 are written as prose, the rest of the scene as verse. The first verse, however, 635, seems to have included *Ita — facito*, the next *Ego — sciat*. In G *facito* begins with a small letter, *ego* is omitted, and the next word, *Aeschinum*, begins with a capital, so that the *distinctio* of the archetype of G seems to have been similar. 654 is omitted by D¹.

668–678 are written as verse, but incorrectly, thus: *Quom — abduci*, *Ab — istuc?* *Quis — nupsit*, *Auctor — alienam*, *An grandem*, *Dum — expectantem*, *Haec — defendere*, *Ridiculum — cui*, *Veneram — quid*, *Nobis — est*, so that the restoration of the true *distinctio* really would be easier from the capitals preserved in the prose portions preceding and following. In 679–695, the capital at the beginning of each verse is preserved. The remainder of the play, from *Hem*, 696, is written in the form of verse, but it is surprising how few of the verses begin and end at the right place. In some scenes the verses are all too long, not a single one being correct. The correct verses are 699, 707, 714, 731–734, 776–778, 785, 786, 795, 802, 857, 858, 868, 871–873, 880, 899–901, 904, 952, 953, 959, 968, 989–993, 996, 997.

PHORMIO

The *Phormio* is written wholly as prose, but in some portions the capitals which mark the beginning of lines in the archetype are much better preserved than in others. In the *Periocha* and the *Prologue* the capitals are all correctly given.

Act I, 1 (35–50). The initial capitals are uniformly preserved.

I, 2 (51–152). In 51–79 only eleven of the verses have a capital marking the beginning, and in these all but three capitals (52, 57, 75) stand at the beginning also of new rôles. From 80–117 the capitals are regularly preserved, except that

in 103 the *E* of *eamus* is due to D², perhaps because in the original it was included within the boundary lines, or omitted. In 104 *Virgo* has a capital as in G. *Videmus*, before it is omitted in DG. In 108 *Ipsa* has capital, but *in* before it was omitted by D¹. In 111 *amare* does not have capital either in D or G. From 118 to the end of the scene capitals are more sparingly found, in fact only at the beginning of 119, 120, 122, 129, 130, 132-135, 139, 140, 144, and 151, or in 13 out of 35 verses. It is noteworthy, too, that in this portion of G the capitals are not very regularly preserved.

I, 3 (153-178). Here, too, there is evidence that the *distinctio* in the archetype was irregular. Capitals correctly mark the beginnings of 153, 155, 156, 163, 167-171, 173-178. The capitals found, however, in the section from 156-165 indicate that the verses of the archetype began with *Consci*us 156, *In* 157, *Quod* 158, *Tum* 159, *Haec* 160, *Veniat* 161, *Quia* 162, *Amore* 163, *Vita* 164, *It* 165. As none of these words begin a sentence, the capitals can only be explained as originally marking the beginning of verses. It is noteworthy, also, that in G none of the lines from 156 to 166 have a capital except 163 *Amore*.

Act I, 4 (179-230). Only 19 of these 52 verses have preserved the initial capital, 179, 181-184, 197, 198, 200, 201, 206-208, 219, 221-224, 227, 229. In 14 of these the capital stands also at the beginning of a new rôle. There are, however, a few capitals besides, so that perhaps in the archetype, new verses began with *Taceam* 186, *Nam* 188, *Nescio* 193, *Revoce*mus 195, *Intellexi* 198, *It* 201, *Istaec* 202, *Atqui* 204, *Phaedria* 208, *Et* 209, *Garris* 210, *Quid* 211, *Suis* 213, *Ah* 216, *Egomet* 217. It seems clear, at any rate, that the *distinctio* was not correct.

II, 1 (231-314). As far as 252 the *distinctio* must have been quite arbitrary. Only 231 and 236-239 have capitals marking the beginning of the verse as given in our editions. Other capitals, however, are found as follows: *O facinus* 233, *Atqui* 235, *Scientem* 237, *Animum* 240, *Omnis* 241, *Ferant* 242, *Omne* 246, *Sunt* 248. On the other hand, from 253-309, the capitals

are regularly preserved, except in 258, 262, 272, 277, 283, 284. G, however, preserves the capitals in all of these, except 277 and 283. In 310 *recta* has no capital, but *Nempe* at beginning of a new rôle has. In 311–314, *Ego* and *Advocabo* alone have capitals.

II, 2 (315–347). In this scene capitals preserved in nearly every verse would enable us to restore the *distinctio* of the archetype, and would show that, although the length of the verses was about uniform, the *distinctio* was entirely wrong, as we have seen it to be in some scenes of other plays written as verse. In G the capitals are very poorly preserved in this section. I give here all the capitals found in D: 315 *Itane* and *Admodum*, 316 *Et*, 317 *Ad*, 319 *In*, 320 *Sic*, 321 *Mihi*, 322 *Nisi*, 323 *Antiphonem* and *Senis*, 324 *Phormio*, 325 *Erumpat*, 326 *Periculum*, 327 *Homines*, 328 *Hospites*, 329 *Cedo* and *Scriptam*, 330 *Tenditur*, 331 *Illis*, 332 *Fructus*, 333 *Vnde*, 334 *Dices*, 335 *Hominem*, 336–339 correct, 340 *Absumitur*, 341 *Tu*, 343 *Quid* and *Potissimum*, 344 *Et*, 345 *Plane*, 346 *Prima*.

II, 3 (348–440). The capitals preserved indicate that the first half of this scene must have been very correctly written in the archetype. *Enicas*, however, at the end of 384 seems to have begun a verse. So, too, *Qui mihi* at the end of 396, while *cognata* at the beginning of 397 does not have an initial capital. *Falsum* has a capital in 400 and *Filium* in 401. From 403 on there are traces of irregularity, although the first words in the received text of 403, 404, 407, 408, 410–413, 415–418, 420–422, 425–427, 430, 433, 435, 437–440 all have capitals. But there are indications that new verses began with *Abusus* 413, *Ohe* 417, *Iam* 423, *Metuit* 428, *Bene* 429, *Egon* 431.

Act II, 4 (441–464). Here the *distinctio* seems to have been very regular. In 449, *Te* does not begin with a capital, and in FP it stood at the end of previous line. In 461 and 462 the only word having a capital is *Id*.

III, 1 (465–484). This scene must have had an arbitrary *distinctio* in the archetypes both of D and G. In the archetype of D verses apparently began with the following words: *Enim*–

vero 465, *Vituperandus* 465, *Aliis* 466, *Tete* 467, *Certe* 468, *Propter* 469, *Cui* 470, *Et* 471, *Qui* 471, *Sed* 472, *Quo* 473, *Nescio* 474, *Nihil* 475, *Vt* 476, *Confutavit* 477, *Eu* 478, *Vos* 478, *Tranquilla* 479, *Est* 480, *De* 481, *Attinet* 481, *Nunc* 482, *Aut* 483, *Vbi* 484, *i.e.* there were 24 verses instead of 20. I see no way to account for most of these capitals except on this hypothesis.

III, 2 (485-533). In this scene the first words of new rôles begin also with capitals, which is not usually the case in D, but many of the verses seem to have been correctly written in the archetype. The only verses not marked with capitals at the beginning, as in Dziatzko, are 491, which probably began with *Ei* (which has a capital), as in AFPG, 498, 500, 503, 505, 507, 508, 510, 513, 516, 518, 522, 526, 527, 530, 531-533. However, new verses seem to have begun at *Idem* 491, *Misericordia* 498, *Atque* 499, *Alia* 502, *Mihi* 503, *Domist* 504, *Vt* 505, *Auribus* 506, *Neque uti* 507 (possibly with *Heia* 508), *Vt* 512, *Dum* 513, *Sine* 515, *Sines* 517, *Contra* 521, *Me* 528, *Aliter* 529, *Aliter* 530, *Hoc* 531, *Phaedria* 532. None of these words, except *Heia* 508, stand at the beginning of new rôles. Thus with approximate certainty we could ascertain the *distinctio* of the archetype.

III, 3 (534-566). Here, too, the beginnings of rôles have capitals, but there are traces of an arbitrary *distinctio* from the fact that many words standing in the middle of a sentence have a capital which would have no excuse except as originally marking the beginning of a verse. The following verses have capitals at the beginning: 534, 537, 538, 539, 540, 541, 542, 545, 548, 551, 553, 555, 556, 557, 558, 561, 563, 566. Most of these verses, however, also begin a new rôle, so that the evidence is not conclusive. Verses began, however, probably with *Quod* 535, *Promissum* 536, *Reddere* 538 (hence verse 539 began with *Reddere*, not with *Scio* 539, which stands at beginning of new rôle), *Pulchre* 542, *Ex* 543, *Nunc* 544, *Nobis* 546, *Hem* 548, *Antipho* 549, *Quid* 550, *Persequi* 551, *Pedetemptim* 552, *Huic* 553, *Minus* 554, *Verum* 555, *Bona* 556, *Reddam* 559, *Adiutorem* 560, *Quidvis* 561, *Exanimatam* 564.

IV, 1 (567–590). Here, although new rôles also begin with capitals, as every verse except 568 and 590 is marked by an initial capital, and there are no other capitals except those at the beginning of rôles, we may reasonably conclude that the *distinctio* was correct in the archetype.

IV, 2 (591–605). Here in fol. 106 r , according to my numbering, the eleventh century hand sets in, and although the verses are iambic senarii, the *distinctio* seems to have been incorrect. The only capitals are *Ego* 591, *Vix* 594, *Tempus* 596, *Hominem* 598, *Quis* 600, *An* 602, *Petam* 604. It is possible that the whole scene of 15 trimeters may have been written in the original in 7 or 8 long lines.

IV, 3 (608–681), of which 606–633 are in same hand as the preceding scene. These give only 9 capitals, 6 of which begin also a new rôle, so that we cannot ascertain the original *distinctio*. However, from 634, where the regular hand sets in again up to 681, we have capitals marking the beginning of every verse, except 639, 664, 667, 672. In 639, *Hodie*, the second word, has a capital, so that the verse probably began with it, and *verba* was included in 638. In 642, *a* is omitted and *Primo* has capital (so G). 672 makes one long line in P and O with the preceding, and so probably in D's archetype.

IV, 4 (682–712) has preserved the capitals throughout and the *distinctio* was almost certainly that of our texts.

IV, 5 (713–727). Here capitals are found corresponding to the beginning of every verse, except 715 and 719, and in 719 *Transito*, which should begin the verse, is omitted by D¹.

V, 1 (728–765). With few exceptions the capitals are retained. Capitals mark also the beginning of new rôles. In 728, which is a very long verse, *Quo* has a capital, so that the second verse of scene probably extended from *Quo* — *petam*, as *aut* has no capital. The same division occurs in F. In P and O 729 and 730 are considered as one verse, which is, however, broken after *consilia*.

V, 2 (766–783). The *distinctio* seems to have been regular. In 774 *An* has a capital and seems to have begun a new verse.

As so many of the lines also begin new rôles, where also an initial capital is used, we cannot be absolutely certain.

V, 3 (784-795). The *distinctio* would seem to have been regular. There are no capitals except at the beginning of new verses or new rôles.

V, 4 (796-819). In this scene the dialogue is very lively. Sometimes within a single verse, the speaker changes two or three times, and as each rôle begins with a capital here, it is impossible to restore the *distinctio*. As, however, the following verses, which do not happen to begin a new rôle, are not marked by a capital, viz. 796, 797, 801, 802, 804, 809, 811, 812, 815, 817, 818, we may be certain that the *distinctio* was not regular. This is confirmed by the fact that the following words not standing at the beginning of a new verse or rôle have a capital. *Cum* 798, *Hoc* 804, *Nescio* 807, *Aut* 809, *Quaesitum* 811, *Nostri* 812, *Coeperas* 814, *Cum* 815. New verses doubtless began with these words, but we cannot be certain in regard to all the verses.

V, 4 (820-827). This is a monologue, and the only capitals found coincide with the beginnings of every verse.

V, 5 (829-840). This scene is composed of long verses, iambic octonarii, and the *distinctio* in the archetype must have been incorrect. According to the capitals preserved new verses must have begun with *Propria* and *Manu* 830, *Conficienda* 831, *Vt* 832, *Quid ais?* 833, *Vt* 836, *Ad* 838, *Argentum* 839. The remaining verses are uncertain, inasmuch as each new rôle, and also 834 and 839, are marked by an initial capital.

V, 6 (841-882). It is impossible here to recover the *distinctio* with certainty, but it cannot have been perfectly regular. Capitals are found in words not beginning a new rôle, but beginning a verse in our present text in 842, 844, 845, 852, 859, 862, 864, 867, 868, not at the beginning of other verses, except those which happen also to begin a new rôle, as 846, 847, etc. Moreover, the following words not beginning a new rôle or a correct verse have capitals: *Nos* 843, *Revocari* 848, *Hercle* 849, *Honoratissime* for *ornatissime* 853, *Diligere* 854,

Gaudio 856, *Aufer* 857, *Em* 858, *Interea* 860, *Mida* 862, *Ad* 864, *Introduxit* 865, *Attendere* 868, *Hercle* 870, *Inventus* 872, *Credito* 874, *Omnia* 875, *Patruus* 878, *Patre* 879, *Tibi* 880, *Ego* 881, *Di* 883, and it is fairly certain that new verses began with these words.

V, 7 (884–893). A monologue in iambic senarii, which seems to have been perfectly regular in the archetype.

V, 8 (894–989). Also iambic senarii. The capitals show that the *distinctio* was correct only in part, e.g. in 922 *Rescribi* has capital, but not *Argentum*. In 930 *Hinc* is the only word with capital, in 931 *Etiam*. Verses 931, 933, 937, 940, 945, 948, 953, 955, 956, 957, 984, 987, are not marked by the preservation of a capital at the beginning. But in 955 I find *Auferat*, 956 *Satius*, 989 *Est*.

V, 9 (990–1055). The evidence shows that this scene in the archetype had an irregular *distinctio*, although on account of the frequent change of rôles, it is difficult to establish it. 991–993, 996–998, 1001, 1002, 1004, and 1007 have not preserved the initial capitals. In 1008–1014 they are preserved, but 1014 seems to have ended with *meritum*, as the following word *Non* has a capital, while *sed*, the proper beginning of 1015, has none. (See above, p. 98). Other irregular capitals not at the beginning of rôles or proper verses are *Vt* 992, *Fere* 1017, *Compressit* 1018, *Unquam* 1018, *Scrupulus* 1019, *Aequo* 1020, *Cupio* 1021, *Aetate* 1022, *Forma* 1024, *Demipho* 1024, *Expectem* 1025, *Qui* 1027, *Atque* 1028, *Vivat* 1030, *Credo* 1031, *Quando* 1034, *Et* 1036, *Respondes* 1037, *Për* 1038, *Si* 1041, *Quo* 1042 (1043–1047 have the initial capitals), *Mihi* 1048, *Tibi* 1050, *Nausistrata* 1052. Many of the verses of the original could be restored, but not all. I have given these details at somewhat great length, because I think it desirable that other manuscripts of the δ family should be collated, and if a manuscript were found, written as verse, and with the verses beginning where we have shown that in all probability they began in the archetype of D, a dependence direct or indirect upon the same archetype might fairly be assumed, and the facts above given would be helpful in establishing the relationship of the new manuscript.

DISTINCTIO VERSUUM IN P

Umpfenbach has given for the most part accurately the *distinctio versuum* in P. However, in many places where two verses are spoken of as making one, he has failed to indicate that the two verses are not written on one line, but that the verse is broken, and he has not stated the point at which it is broken. This may sometimes be of importance, for it may indicate that in the archetype the long verse was really considered as two verses. I need only point out here some inadequate statements of Umpfenbach, premising that a great many long verses in P are divided between two lines, which Umpfenbach does not consider, and which it would take altogether too long to enumerate, since the fact is of no great importance.

ANDRIA

Andria 175 and 176 are considered as one verse, which, however, is broken after *verebar*, just as 178 is broken after *fecit*.

195 and 196 are considered as one verse, broken after *nuptiis*. *fallaciae* has no capital, and is set in 2.50 cm. from margin.

For 239–246, see above, p. 98.

251 and 252 make one verse, broken after *exanimavit*.

269 closes with *autem*, and 270 begins with *Hoc*.

299 closes with *accerso*; the next verse includes *Propero* — *cave*, the next *De* — *teneo*. In D, also, *De* has a capital.

385 and 386 are treated as one verse, broken after *il* of *illa*.

484 and 485 make one verse, broken after *date*. So 516 and 517, broken after *moventur*. So 604 and 605, broken after *mali*, where 604 properly ends. 606–616 are incorrectly given by Umpfenbach. It should be: 1, *Ubi* — *perdidit*; 2, *Perii* — *quandoquidem*; 3, *Tam* — *meas*; 4, *Me* — *auferet*, but broken after *fero*; 5, *Posthac* — *malum*; 6, *Nam* — *sum*, broken after *me*; 7, *Pollicitus* — *audeam*; 8, *Nec* — *sedulo*; 9, *Dicam* — *ohe*; 10, *Visus* — *miserum*; 11, *Impeditum* — *Pamphile*.

635 ends with *heus* (so probably G, which has *Proxumus*). 636 extends from *Proxumus* to *fides* on one line. 637 from *Si*

to *verentur*, broken after *opus est*, and both lines are set in from margin 2 cm.

752, *Deliras* — *unum*. 753, *Praeterea* — *cave*. 754, *Maledicis* — *hahahae*.

EVNVCHUS

For 208–215, see above, p. 100. 278, beginning *Deorsum*, and 279 make one verse, broken after *leo te*. From 283 to 517 there can scarcely be said to be any *distinctio* (so Umpfenbach). In some cases the capitals which would mark the beginning of verses are preserved. 698 is broken after *eum*, the next line has *prius* EVN *non*, but P² has added *nec* — *esset*. 765 reads in P

Mane mane CĪHR melius est. THA mane, CHR omitte.

The next line has *Iam* — *Chremes* set in at a considerable distance from the margin. *hem* is omitted at the end of 977 by P, but P² has added it at the beginning of the next line, thus:

hem
LAC|Q*uid*

So in 1053 *hui* is added by P². In 1049 *serva* — *nobis* is written on a line by itself, but set in, and *serva* is without capital.

HAVTON-TIMORVMENOS

For 177 and 178, see above, p. 100. 342, although considered a part of the previous verse, is on a line by itself, and set in from the margin 2 cm. In 406 *salve anime mi* is on a line by itself, but regarded as part of 405. For 566, 894, and 1004, see above, pp. 100 and 101.

PHORMIO

For 162 and 163, 183 and 191, see above, pp. 101 and 96. 229 and 230 make one verse, but *succenturiatus* — *age* is on a separate line, set in. So 393, *ad* — *decem* is on a separate line, but *ad* (sic) has no capital. So 436 and 437 make one verse, but *abducere*, etc., 437, is set in 2 cm. from the margin. For 529 and 530, see p. 101. 671 and 672 make one verse, written, however, on one long line. For 728 and 729, see p. 101. 952 and 953 make one verse, but broken before *nisi*, which is set in 3 cm.

HECYRA

For 319 and 611 see above, p. 101. For 620 and 621 see p. 97. For 731 see p. 102. For 767 see p. 102. 849 and 850 make one verse on two lines, divided properly before *at ego*, which is set in. 854 and 855 make one verse broken before *me*, which is set in. So 858 and 859 broken after *obtines*.

ADELPHOE

For 157 and 158 see above, p. 102. For 302 and 303 see p. 102. 316 and 317 make one verse, but broken before *statuerem*, which is set in. In 343 the verse is broken before *Sostrata*. So also O. Compare A.

359 and 360 make one verse broken before *aliquo*, which is set in. 364 *non — velle* is set in and may have been regarded as a part of the preceding verse, although *Non* begins with a capital. For 523 and 524 see above, p. 102.

The Canticum, 610 ff., presents this appearance in P:

Discrucior animi
Hocine de inproviso mali mihi obici tantum
Ut neque quid me faciam nec quid agam certum siet
Membra metu debilia sunt
Animus timore obstipuit
Pectore consistere nihil consilii quit vah
Quomodo me ex hac expediam turba
Tanta nunc suspicio de me incidit neque ea inmerito

The preceding verses are at the bottom of fol. 113 v. Fol. 114 r begins with the long line. *Sostrata credit*, etc. The short lines begin at $2\frac{1}{2}$ cm. from the margin.

This Canticum is given in A, at the bottom of fol. CX r, as far as *obstipuit* 613, the remainder at the top of fol. CX v. Umpfenbach does not indicate that some of the lines are set in. The Canticum presents this appearance:

(At bottom of fol. CX r)

- 1 DISCRVCIORANIANIMIKOCINEDEINPROVISOMALIMIKIOBICITANTVM
- 2 VTNEQ·QVIDMEFACIAMNECQVIDAGAMCERTVMSIET
- 3 MEMBRAMETVDEBILIASVNTANIMUSTIMOREOBSTIPVIT

(At top of fol. CX v)

4 PECTORECONSISTERENIKILCONSILIIQVITVAK
 5 QVOMODOMEEXKACEXPEDIAMTVRBA
 6 TANTANVNCVSPICIODEMEINCIDITNEQ·EAINMERITO
 7 SOSTRATACREDITMIKIMEPSALTRIAMKANCEMISSEIDANVS
 8 MIKIINDICIVMFECIT

The last verse is set in 3 cm. from margin; vv. 4, 5, and 6, 13mm. or after the inner ruling. I have shown above that the *distinctio* of the Canticum in the archetype of D and G agreed rather with A than with P.¹ It is of this Canticum that Gitlbauer in the preface to his fantastic edition of the *Adelphoe* (1896) says: "dubitare iam non poteram quin libri non versus sed meram orationem prosam exhibeant."

I have considerable material bearing upon the *distinctio versuum* in F, but I have not examined all the plays with equal care. In general it may be said that many more verses are 'broken' in F than in P, there being a tendency to write short verses. F is not as important for the *distinctio* as P and the closely related O, although, as I have already shown, there are some rather interesting cases of coincidence between A and F. For determining the history of the tradition of Terence, and the genetic relationship of the various manuscripts, I am convinced that more attention must be paid to this matter of *distinctio*, traces of which can be found, as we have seen in the case of D and G, in manuscripts which, in whole or in part, have the appearance of being written as prose. Gitlbauer's theory of a prose-Terence has found few believers, and his position certainly is not strengthened by the argument (Praefatio p. v): "Haec mea sententia haud exigue eo firmatur quod longe plurimi libri Terentiani non versibus sed continua oratione scripti sunt."

MINTON WARREN.

¹ Parisinus 16235, a very large manuscript, 33 cm. by 29 cm., has this Canticum with the same *distinctio* as in A, except that V 7 has *Sostrata—fecit*. I hope later to make a more careful examination of this manuscript and of Parisinus 10304.

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SYMMETRY IN EARLY CHRISTIAN RELIEF
SCULPTURE

WHAT considerations determined the choice and arrangement of the subjects selected by the early Christians for representation in relief sculpture? The present paper aims to throw some light upon this much-discussed question by calling attention to the important influence exercised over the sculptors by a desire to secure a merely external symmetry and balance of the component elements of groups or of single figures, and by a desire to select themes appropriate to the shape and size of the field at their disposal.

The discussion will be confined almost entirely to the sarcophagi, since these form by far the largest part of the extant monuments of early Christian relief sculpture.

The attempt to secure symmetry and balance is evident (I) in the disposition of the relief fields; (II) in the composition of the special groups and single figures; (III) in the distribution of the figures and groups upon the relief field.

I

The simplest ornamentation of the sarcophagi—one often employed by both Christians and pagans—is the so-called strigilation, a series of S-shaped flutings vertically crossing the face of the sarcophagus. True to the taste for symmetry, the sculptor so disposes the ornamentation that the direction of the S-curves in the right and left halves of the field is reversed. By causing the upper curves to open toward the centre, he secures a rather broad lenticular field just above the

central point of the sarcophagus face. The first step¹ toward a more complex system of ornamentation consists in the introduction of a relief into this lenticular field. This relief usually represents the Good Shepherd or an *orans*—a figure *en face* with arms outstretched in attitude of prayer (see Garrucci, *Storia dell' Arte Cristiana*, vol. V, pl. 375, fig. 2²). In other cases a regular,³ rectangular field of varying size and bordered by a simple moulding,⁴ is substituted for this lenticular field. The remainder of the face of the sarcophagus is then symmetrically decorated. The central panel, though sometimes reserved for the epitaph, usually bears an unpretentious relief, such as the Good Shepherd,⁵ an *orans*,⁶ a biblical scene, *e.g.* the Nativity,⁷ Christ alone or attended by disciples,⁸ the denial of Peter,⁹ a liturgical scene (a husband and wife alone or in the presence of Juno Pronuba¹⁰). In other cases the upper half of this panel is occupied by an *imago clypeata*, and the lower half by a plate for the epitaph,¹¹ by a conventional design¹² or by a pastoral¹³ or biblical¹⁴ scene. Of the terminal decorations the simplest forms are plain mouldings,¹⁵ columns, or pilasters;¹⁶ the last two suggest the original house-form of the sarcophagus. A variant form consists in a tall and narrow rectangular field bearing a relief-representation of a genius with an inverted torch, the figures at both ends being the same, but with attitudes reversed.¹⁷ This field is not infrequently still further enlarged and adorned with

¹ *i.e.* in complexity, not in chronological development.

² Hereafter citations from vol. V of Garrucci's work will be given thus: G. 375, 2.

³ An exception is G. 295, 2.

⁴ Sometimes separated from the strigilation by fluted pilasters or columns (G. 295, 1; 325, 4; 362, 3).

⁵ G. 295, 1, 2; 300, 1; 301, 1; 303.

⁶ G. 373, 4, 5; 374, 1, 2; 375, 1, 2, 4; 403, 2; 377, 4; 378, 1; 380, 1. In the last three instances the *orans* forms one of a symmetrical group of three figures.

⁷ G. 310, 4.

⁸ G. 329, 3; 330, 1, 2; 342, 2.

⁹ G. 316, 4.

¹⁰ G. 325, 4; 327, 1; 361, 1; 362, 3; 368, 3.

¹¹ G. 358, 2.

¹² G. 357, 3; 360, 2.

¹³ G. 359, 2; 363, 1-3; 366, 1.

¹⁴ G. 357, 1, 2, 4.

¹⁵ G. 298, 2; 342, 2.

¹⁶ G. 295, 1; 300, 2-4; 301, 1, 3-5; 306, 1-4; 380, 1.

¹⁷ G. 297, 1, 2; 403, 1.

other single figures or groups, such as a lion attacking a deer,¹ Cupid and Psyche,² a human figure,³ an *orans* or Good Shepherd,⁴ or a sheep near a tree.⁵ In all these instances there is a close correspondence between the figures at the right and left, either in external form or in content, or in both. When we pass from this range of scenes to the biblical scenes, the correspondence becomes less conspicuous, although instances are not wanting which show an effort on the part of the sculptor to break with tradition and alter the composition of the established subjects, so as to render them more appropriate in form to the new conditions. Desire to secure symmetry seems to have played some part also in the choice of subjects. Thus the most frequently recurring scenes are those from the life of Moses,⁶ representations of resurrections,⁷ the sacrifice of Isaac,⁸ all of which are especially easy to adjust to the requirements of a terminal position.⁹

A more complex system of decoration arises when each terminal panel is divided by horizontal mouldings into two equal fields.¹⁰ A still more complex system is seen when the strigilated field is subdivided vertically as well as horizontally, so as to exhibit two pairs of superposed panels. In such cases the central and terminal figured reliefs are sometimes also subdivided into superposed compositions,¹¹ and sometimes more satisfactorily left undivided.¹² These subdivided terminal panels exhibit biblical subjects only. Occasionally, between terminal reliefs the strigilation is omitted and a figured composition substituted.¹³

¹ G. 357, 3; 383, 2.

² G. 357, 1.

³ G. 307, 4; 363, 3.

⁴ G. 358, 2; 360, 2; 370, 4.

⁵ G. 300, 1.

⁶ The striking of the rock (G. 357, 2; 359, 2; 361, 1; 366, 1; 374, 2; 375, 1), the receiving of the tablets of the Law (357, 2; 366, 1).

⁷ G. 361, 1; 364, 1.

⁸ G. 310, 4.

⁹ The representations of Lazarus and of Moses striking the rock may thus be adjusted by shifting the tomb of Lazarus or the rock to the left or to the right side of the composition, thus causing the figures of Christ and of Moses to face in a different direction.

¹⁰ G. 364, 1.

¹¹ G. 361, 1; 399, 1, 2, 7.

¹² G. 324, 4.

¹³ G. 308, (from Trèves).

An important type of Christian sarcophagus¹ is that which has the form of a peripteral temple. There is usually an odd number of intercolumniations along the front, one in the centre and two to four at each side, with alternating round and pointed arches. Each intercolumniation is occupied by a figure or a group; the correspondence in form between these being often not less striking than that between the architecturally formed fields they adorn² (see Fig. 1).



FIGURE 1.—CHRISTIAN SARCOPHAGUS IN THE LATERAN MUSEUM, ROME.

There is no Christian sarcophagus bearing on its face more than one field of reliefs that does not show a symmetrical disposition of the fields, and few that show a neglect of symmetry in the composition of the groups that fill them.

II

Passing to the consideration of the special groups and single figures, we have first to note a striking contrast between Christian and pagan relief sculpture. While the pagan artist usually filled his field with one scene, the Christian sculptor almost invariably placed upon the sarcophagus face a series of from four to fifteen different scenes.³ In this method of pro-

¹ One often used by the pagans also.

² G. 321, 1-4; 322, 2; 361, 2.

³ The only important exceptions are (1) the Children of Israel crossing the Red Sea, represented on several Gallic and on one Roman sarcophagus, and (2) Christ attended by his disciples.

cedure, however, he was not an innovator. The pagan sarcophagi also show a tendency to break up a group into a number of elements, as in the representations of Endymion¹ and of Venus and Adonis.² We find also in pagan reliefs separate scenes standing side by side. The well-known sarcophagus of the 'Mourners' from Sidon affords a close parallel to the Christian representations of Christ sitting with his disciples. In these instances there is generally some inner connection between the scenes, these being usually scenes from the life of some individual.³ The Christian sarcophagi, however, so far as has yet been demonstrated, aside from a few examples,⁴ show no such bond of union.⁵

Furthermore the early Christians confined themselves to a rather limited range of subjects,⁶ and thus repeated again and again the same scene. This tendency to repetition is not peculiar to Christian sculpture. To mention only a few conspicuous examples from pagan art: Robert in *Die antiken Sarkophag-Reliefs*, vol. III, cites over fifty existing sarcophagi bearing representations of Endymion and Selene, which, though divided by him into three classes, show in reality only slight variations from each other. The same volume contains plates illustrating forty-six sarcophagi bearing representations of the labors of Hercules. Of these thirty-one represent the twelve labors and show the same lack of variety and the same tenacity in clinging to traditional types as do the Christian sarcophagi.

¹ See Robert, *Die antiken Sarkophag-Reliefs*, III, pls. 12-25.

² Robert, *op. cit.* III, pls. 2-5.

³ Examples are the scenes from the lives of Iphigenia and Orestes (Robert, *op. cit.* II, pls. 57-59), and from the life of Hercules (Robert, *op. cit.* III, pls. 27-43).

⁴ E.g. scenes from the life of Susannah on a Gallic sarcophagus (G. 377, 3).

⁵ Schultze, *Archaeologische Studien*, *passim*, urges the importance of the idea of the resurrection in this connection. Other attempts to find a unifying idea are mentioned below (p. 144 f.).

⁶ The number and variety of subjects is really larger than is usually realized. Over seventy-five scenes from the Old and New Testaments occur, several of them in two or three different forms. If we add to these the symbolical and liturgical scenes, and the scenes borrowed from pagan art, the number rises above 150 (cf. Kraus, *Geschichte der christlichen Kunst*, I, pp. 91-222).

Examining these subjects in detail, we note that the symmetrical arrangement of parts is strikingly prominent in the following single figures and groups :

(1) *The orans*. The symmetry of the figure is complete.

(2) *The Good Shepherd*. The most frequent type is that in which the Shepherd appears in the attitude of the classical *kriophoros*, that is, carrying a sheep across his shoulders. At his feet stand two other sheep, one at each side. They usually face him and stand in perfectly symmetrical attitudes and positions; or, if not facing him, their heads are turned toward him. If four, six, or eight sheep surround him, they are divided into equal groups at his right and left. A tree at the right and one at the left often close the scene.

(3) *Daniel in the lions' den*. This theme is subject to fewer variations than almost any other. Daniel is represented nude,¹ standing with arms outstretched in the attitude of an *orans*. At each side stands a lion facing² him. On the sarcophagi he is sometimes alone, sometimes attended by Habakkuk and other persons. In the frescoes he is always represented alone. The lions³ occupy symmetrical positions except in extremely rare instances. They sometimes stand or lie, but most frequently sit on their haunches, thus imparting to the composition a distinctly pyramidal form. When two persons attend the prophet, they stand at the right and left, one behind each lion. In a few instances only is a third attendant added.

(4) *Christ attended by disciples*. In these scenes, which ordinarily occupy the entire face of the sarcophagus, either in a single field or in a succession of intercolumniations, Christ uniformly occupies the centre, either seated or standing upon a rock from which flow the four streams of Paradise. The dis-

¹ He is rarely clothed (see Kraus, *Real-Encyclopädie der christlichen Alterthümer*, s.v. Daniel; Hennecke, *Altchristliche Malerei und altchristliche Literatur*, p. 57).

² In a few instances turned from him (see Hennecke, *l.c.*).

³ Two in number. A single exception (G. 301, 3) has only one lion; yet even here a symmetrical effect is secured.

ciples (two, four, six, ten, or twelve in number—in one instance there are twenty-four persons represented) sit or stand, an equal number at each side of the central figure. In the attitudes and the grouping of these figures the tendency is to balance group with group or figure with figure, to the right and left of the centre. Particularly noticeable in this respect is a Gallic sarcophagus.¹ In the accessories also, *e.g.* a palm tree at each side of Christ, a man and a woman kneeling at the right and left below Him, or two deer drinking from the streams, a strict symmetry of position and attitude is preserved.²

(5) *Representations of the temptation and transgression of Adam and Eve.* Like most of the other groups composed by the early Christians it contains but few elements. The two parents, nude, stand *en face* on each side of the Tree of Life, about which a serpent is sometimes coiled. The strict symmetry of the group is broken only by the position of the arms and (though less frequently) by the sheaf of grain and the sheep which accompany them as symbols of the fields of labor to which they are respectively condemned. In many instances the arms also are symmetrically placed; both being held before them or one being extended toward the tree. In the frescoes the tree also is treated with a symmetry almost geometrical, sending out, for example, in one case, two branches from one side, which correspond exactly in form, size, and position to two others on the opposite side.³ The fuller treatment of the tree in the frescoes is due not only to the greater ease with which they were produced, but also to the larger field at the disposal of the painter, as is shown by the fact that the group receives a similar fuller treatment in the sarcophagi, when it is sculptured upon the cover or one of the small sides, positions which are favorable to the lateral expansion of the scene.⁴

¹ Le Blant, *Étude sur les sarcophages chrétiens antiques de la ville d'Arles*, pl. iv.

² Cf. Schnaase, *Geschichte der bildenden Künste*, III², p. 91.

³ Garrucci, vol. II, pl. 63.

⁴ Cf. below, pp. 144 f.

When the sheep and the sheaf are present, they are employed to fill in the spaces at each side of the foot of the tree.¹

(6) *The condemnation of Adam and Eve.* Christ, the Λόγος, stands *en face* between the two. Eve is generally at his left, as usually in the preceding group. Christ holds in his right hand a sheaf of grain, in his left he holds a lamb by the fore feet. The group is composed with almost exact symmetry, extending frequently even to the positions of the hands of Adam and Eve.²

(7) On one sarcophagus is a representation of the offerings of Cain and Abel modelled closely upon the preceding group.³

(8) *The multiplication of the loaves and fishes.* In the treatment of this miracle the frescoes and the sarcophagi present marked divergencies. In the frescoes Christ is unattended by other figures.⁴ Near him stand seven baskets of loaves, one of which he touches with a wand. On the sarcophagi Christ is represented standing between two men, each of whom holds a plate with both hands. On the plate at the right are two fishes, on the other are loaves of bread. Christ extends his hands and touches the loaves and fishes. Deviations from this symmetrical type⁵ are usually explainable on technical grounds.

(9) A scene composed strictly on the model of the preceding and explained as Isaac blessing Jacob and Esau.

(10) *The labarum*, at the base of which sit two soldiers in full armor. The *labarum* is often made the centre of groups similar to (4). The arrangement is in all cases strictly symmetrical.

The following groups betray less clearly the influence of a desire to secure symmetry :

(11) *The arrest of Moses, Peter, or Christ.* Each shoulder of the person arrested is seized by an officer. The energy of action — quite unusual in early Christian sculpture — that char-

¹ Illustrations of this group in G. *passim*, in particular 333, 3; 372, 3; 377, 1.

² G. *passim*, in particular 367, 2, 3.

³ G. 310, 2.

⁴ The only exception is G. vol. II, pl. 18, 3; yet here the scene is symmetrical.

⁵ G. 320, 1.

acterizes this scene, serves to break somewhat the formal monotony which it would otherwise have and which would give it much the same form as that assumed by the miracle of the loaves and fishes.

(12) The denial of Peter.¹

(13) Christ and the woman of Samaria.²

These subjects, except Nos. 7, 9, 12, 13, are among those of most frequent occurrence in the early Christian art, there being but few sculptured sarcophagi that do not contain one or more of them. Those which show the most striking symmetry — Adam and Eve, Daniel, the Good Shepherd, and the *orantes* — are among the earliest themes chosen for representation by the Christians, and are found with great frequency in frescoes. The multiplication of the loaves, on the other hand, first finds a symmetrical representation in the relief sculpture. The arrest of Moses was developed out of the representation of the striking of the rock,³ and the arrest of Peter and of Christ are formed upon its model.

III

As stated above, the Christian sculptor usually filled the field with reliefs representing, not a single scene, but a series of from four to fifteen different scenes. In the distribution of these scenes over the surfaces of sarcophagi, we find not less striking evidence of a tendency to symmetrical arrangement and balance combined with an effort to adjust the given group to the form or the division of the field in which it finds its place.

As in the examination of the sarcophagi bearing simple ornamentation we found the centre to be the chief point of interest, so on the more elaborately decorated sarcophagi the centre receives in all but a few instances a strong emphasis. This is particularly true of the representations of Christ surrounded by his disciples. Although the scene often fills the

¹ G. 316, 4; 323, 5; 334, 1, 3.

² G. 319, 1; 333, 1; 334, 1.

³ Schultze, *op. cit.* p. 167.

entire face and both small sides of the sarcophagus, yet, on the other hand, it is often reduced until only one or two attendants are left at each side. In this case the group loses much of its independent value, and becomes a mere central group on a par with those surrounding it. It is then still further simplified by a substitution of the *labarum* for the figure of Christ, and in this form frequently occupies the middle one of a series of intercolumniations.¹

Next to this type that which occurs most frequently as a central figure is the *orans*. Its independence as a central element is often formally indicated by its separation from the adjacent groups, either by a field left free from reliefs,² by two columns,³ or by two trees.⁴ The same effect is secured by setting the figure before a *parapetasma*.⁵ Not infrequently two men stand at the right and left in corresponding attitudes. In a few instances — reliefs of very poor execution — the figure is somewhat confused with the adjacent groups.⁶

The Good Shepherd when employed as a central figure is not often associated with biblical scenes. An instance of such a grouping is afforded by a Gallic sarcophagus.⁷ The subject is more frequently found filling a central panel,⁸ and once has a place within the central intercolumniation of a series of five, the other four being filled by the four Horae.

Of the New Testament miracles, the multiplication of the loaves and fishes, which received the most symmetrical treatment, has, in several instances, been employed as a central group.⁹

The Samaritan woman at the well occurs as the central group on a sarcophagus found in Rome.¹⁰

Daniel between the lions was used more frequently as a central element than any other Old Testament theme. Thus

¹ G. 335, 2-4 ; 350, 1, 2.

² G. 377, 1.

³ G. 369, 1, 3.

⁴ G. 378, 4.

⁵ G. 369, 2 ; 376, 1 ; 380, 3.

⁶ G. 382, 2.

⁷ Le Blant, *l.c.*

⁸ Cf. p. 127.

⁹ G. 312, 1, 3 ; 313, 1, 2 ; and in a slightly varied form, 312, 2.

¹⁰ G. 313, 3.

placed it occurs four times below the *imago clypeata*,¹ and three times on covers.²

Adam and Eve form the central group on one relief,³ and on another,⁴ Cain and Abel bringing their offerings.

It is noticeable that the subjects which from preference are given a central position on the sarcophagi are precisely those which in the above examination of the special scenes have been found to be symmetrical in composition.

Although the number of different subjects employed as central elements is small, yet these find such frequent application that a very large proportion of the extant sarcophagi show them.⁵ The prominence of the central element is in fact so marked that Garrucci determined the succession of the illustrations in his *Storia dell' Arte Cristiana* almost exclusively on this basis.

In the selection of the subjects for representation at each end of the sarcophagus face, the desire to secure symmetry, together with a fitting termination, is not less evident than in the case of the central group. This is the more surprising because the great majority of the subjects employed by the early Christians contain or consist of standing figures, any of which might have been used as terminal elements without seriously detracting from the artistic finish of the composition as a whole. The monotony, however, produced by a long line of standing figures has led the sculptors to vary the series at the ends.

The following scenes⁶ are used in preference to others as terminal⁷ groups. The number of occurrences of each subject is here given.

¹ G. 364, 3; 365, 2; 367, 1, 2.

² G. 384, 2, 5; 398, 4.

³ G. 310, 1.

⁴ G. 310, 2.

⁵ The exceptions are: G. 313, 4; 314, 5, 6; 316, 3; 318, 1 (?), 4 (?); 361, 2; 371, 1; 372, 2 (?); 377, 3.

⁶ Several have already been cited by Le Blant, *op. cit.* p. xiii.

⁷ Counting also as terminal positions those on each side of the *imago clypeata*. Sarcophagi with arcades are also included contrary to the precedent set by Le Blant, *l.c.*, since these show even more clearly than the ordinary type an effort to balance the corresponding scenes right and left of the centre.

(1)	Resurrection of Lazarus	25
(2)	Resurrections of other persons	9
(3)	Vision of Ezekiel	1
(4)	Sacrifice of Isaac	29
(5)	Moses striking the rock	25
(6)	Moses receiving the law	19
(7)	Adoration of the Magi ¹	10
(8)	Handwashing of Pilate ¹	9
(9)	Job and his friends ¹	5
(10)	Offerings of Cain and Abel ¹	4
(11)	Washing of Peter's feet ¹	3
(12, 13)	Man reading, A person seated (2 each) ¹	4
(14)	Slaughter of the innocents ¹	1
(15, 16)	Saul, Stoning of Stephen (1 each)	2
(17)	Creation of Adam and Eve	1
(18)	A royal personage seated	1
		<hr/>
		148

The following subjects, though not especially suited for use as terminal elements, occur as such:

Three Babylonians before Nebuchadnezzar	6
Miracle of the loaves and fishes	6
The Haemoroessa, Paralytic, Blind, Daniel destroying the serpent (5 each)	20
Adam and Eve, Peter receiving the keys (4 each)	8
Story of Jonah, Denial of Peter (3 each)	6
Moses and the burning bush, Daniel between the lions (2 each)	4
Miracle of Cana, an <i>orans</i> , Baptism of Christ (2 each)	6
Miscellaneous scenes (1 each)	14
	<hr/>
	70

The most common instance of the balancing of similar terminal groups is that of Moses striking the rock and the resurrection of Lazarus. The subjects Moses receiving the law and the Sacrifice of Isaac are frequently found at each side of the *imago clypeata*. In these scenes the hand of God appearing in the clouds is made to fill the triangular space between the upper moulding of the sarcophagus face and the rim of the 'clypeus.'² The frequent recurrence of the first two scenes

¹ Each of these scenes has a seated figure at the end of it.

² Le Blant, *op. cit.*

in connection with each other is used by Kraus¹ as evidence for substantiating the theory that the sculptor desired to symbolize in them the Old Testament type and its fulfilment in the New ('Typus und Erfüllung des Typus'). Le Blant, however, in the passage cited above seems to come nearer the truth, when he says that the desire mentioned above to provide a suitable terminal element for the series of reliefs guided the artist in the choice of these subjects.² Schultze³ calls attention to the 'unmittelbare Verbindung' or 'Inbeziehungsetzen' of these two groups, in commenting on the frescoes of *cubiculum* B in the catacombs of St. Callixtus. When scenes representing resurrections other than that of Lazarus⁴ occur as terminal elements, they are probably so used because of confusion with it. The position of the scenes of Moses receiving the law and the Sacrifice of Isaac at the close of a series of reliefs on each side of the *imago clypeata* led to their employment as terminal elements at the ends of the sarcophagus face as well. The subjects 7-14 in the above list are rendered suitable by the fact that the seated figure in each may easily be made to occupy a position at the end of the sarcophagus face and turned toward the centre. The eighteen subjects in the first list occur in the great majority of cases in final positions; the twenty-nine⁵ in the second list occupy these positions a relatively small number of times. For example, the miracles of Christ, although they belong to the most common themes of early Christian art,⁶ occur only two to six times each as terminal elements.

Besides using biblical scenes for this purpose the Christians

¹ *Real-Encyclopädie der christlichen Alterthümer*, II, p. 431.

² That which renders these two scenes suitable for the position is that the tomb of Lazarus in the one, and the rock with the stream of water in the other, are solid vertical masses having the effect of a pilaster or column.

³ *Op. cit.* p. 39.

⁴ Regarding as resurrections of Lazarus only those scenes having an *aedicula*-like tomb.

⁵ Except the first and sixth.

⁶ I have noted over four hundred instances on the sarcophagi alone.

sometimes followed the practice of the pagans and chose an architectural form¹ or rocks and vegetation.²

In the disposition of the reliefs lying between the centre and end groups we do not note so marked an effort to secure a balance of lines and forms; yet instances in which this consideration has had its weight are far from uncommon, as the following cases will show: a scene of arrest is balanced with the miracle of the loaves and fishes³ in ten instances.⁴ The Adam and Eve group is balanced with the miracle of the loaves and fishes,⁵ and with Daniel between the lions,⁶ an arrest with an arrest,⁷ the stoning of Paul (?) with Christ led before Pilate,⁸ Peter led to punishment with Christ led before Pilate.⁹ Balancing of double or triple pairs of New or Old Testament scenes which are made to correspond in general also occur;¹⁰ likewise New Testament miracles are balanced with each other.¹¹ An excellent example of symmetrical compositions on a Christian sarcophagus is furnished by a sarcophagus found at Arles.¹²

The covers of the sarcophagi offer a peculiar and somewhat difficult problem to the sculptor. He is called upon to fill a field which is very low in proportion to its length; too low to admit well a standing human figure, and too long for any but a rather extended scene. The pagan sarcophagi show a number of more or less successful attempts to solve the problem. The field is often reduced to less than one-half its former length by inserting the plate for the epitaph in the centre, thus producing two fields for reliefs. Whether thus diminished in length or not, the space is usually filled with scenes that naturally demand but little height, and may be extended indefi-

¹ G. 298, 1 (an arched doorway); 299, 1-3; 300, 2-4; 301, 1, 3-5 (columns or pilasters).

² G. 298, 1; 304, 4.

³ The close resemblance between these groups in external form was mentioned above (p. 133).

⁴ G. 314, 2, 6; 318, 4; 364, 3; 366, 3; 372, 2; 376, 1; 378, 2; 380, 4; 382, 2.

⁵ G. 365, 2. ⁶ G. 301, 3; 322, 2. ⁷ G. 340, 5; 322, 2 (?).

⁸ G. 346, 1. ⁹ G. 335, 2. ¹⁰ G. 321, 3; 366, 2; 370, 1; 379, 1.

¹¹ G. 319, 2; 375, 3 (paralytic and the blind); 320, 1 (the blind and the haemorrhoea); 353, 1; 403, 4 (the haemorrhoea and the centurion); 353, 1 (the blind and the denial of Peter).

¹² G. 361, 2.

nately in length. Such are: (1) a train of sea animals or dolphins,¹ the former often bearing sea nymphs on their backs; (2) a train of captive women in sitting posture;² (3) two sphinxes facing, with vertically compressed bodies;³ (4) a chase;⁴ (5) cupids holding garlands.⁵ Less frequently the required length is secured by representing a series of moments in a myth, as that of Medea in Corinth,⁶ Iphigenia among the Taurians,⁷ or the labors of Hercules.⁸

The Christian sculptors showed themselves no less skilful in dealing with the problem. They had the choice of several methods. They might adopt pagan subjects, reorganize and adjust the distinctively Christian subjects (in case they were inappropriate) to the new conditions, or adopt suitable Christian subjects. As a matter of fact, they resorted to all of these methods. Of the pagan subjects the dolphin was the one most frequently adopted, perhaps because of its association with the fish, the symbol of Christ. Christian compositions were altered by expanding them laterally.⁹ The representations of Adam and Eve and of Daniel between the lions are somewhat capable of lateral expansion and occur several times on covers. The following scenes,¹⁰ all rather long in proportion to their height, find frequent representation on covers: the story of Jonah (19 occurrences), the Nativity (3), the adoration of the Magi (18), the three men in the fiery furnace (6), the same before Nebu-

¹ Robert, *Die antiken Sarkophag-Reliefs*, III, pl. 12, no. 40.

² Robert, *op. cit.* II, pl. 32, nos. 77, 78.

³ Robert, *op. cit.* II, pl. 18, no. 27.

⁴ Robert, *op. cit.* III, pls. 38, 40, nos. 127, 132.

⁵ Robert, *op. cit.* III, pl. 13, no. 48.

⁶ Jason and Creusa, the children bearing the gifts to Creusa, the death of Creusa and Creon, the murder of the children, the flight of Medea (Robert, *op. cit.* II, pl. 62, no. 194).

⁷ The recognition of Iphigenia and Orestes, the carrying of the image of Artemis to the shore, the battle on the shore, the flight of Iphigenia and Orestes (Robert, *op. cit.* II, pl. 54, no. 155).

⁸ Robert, *op. cit.* III, pl. 33, no. 120.

⁹ Good examples are found in Garrucci's work, pl. 383, 5; 384, 2, 4; *et al.*

¹⁰ The list is not complete. The number of omissions, however, does not have any appreciable effect upon the relative proportion of occurrences.

chadnezzar (2), the crossing of the Red Sea and the fall of manna (1), the slaughter of the innocents (1), the twelve apostles (1), the striking of the rock and the arrest of Moses¹ (5). Other groups which do not possess these proportions occur only rarely on covers. Fully seventy per cent of the representations found on covers are of the third kind, subjects adopted as specially appropriate for such a field. These subjects may be divided into two classes. The first class comprises those which are composed of an extended series of seated or standing figures, while the second shows a predominance of horizontal lines.

That it was chiefly a regard for the form of the field that led the sculptors to choose these subjects for cover decorations, is proved by their occurrence in the narrow field below the *imago clypeata* on many sarcophagi,² and in the narrow fields resulting from the distribution of the reliefs on the sarcophagus face into two horizontal bands instead of one.³ Noticeable is also the fact, that many biblical scenes occur rarely on covers, although they frequently appear in other positions on the sarcophagi. Such are the miracles of the Lord and several Old Testament subjects (the sacrifice of Isaac, Adam and Eve).

A similar set of conditions presents itself in the short sides of the sarcophagi. Here the field is usually scarcely long enough to admit the representation of more than one ordinary group of two or three figures without overcrowding.⁴ The sculptors, therefore, in most instances selected single scenes that are either somewhat longer than the ordinary groups or are capable of lateral expansion. The groups most frequently occurring there are: the three men in the fiery furnace (4 times), Adam and Eve (8), the three men before Nebuchadnezzar (4),

¹ The two scenes are so intimately associated that the sculptors seem to have regarded them usually as a single group.

² The adoration: G. 358, 1; 365, 1; Jonah: G. 359, 1; 366, 3; 367, 3; Daniel between the lions: G. 310, 1.

³ Jonah: G. 377, 1; Adoration: G. 365, 2; 377, 1; the three men before Nebuchadnezzar: G. 365, 1.

⁴ The difficulty does not exist in the case of very deep sarcophagi.

Daniel between the lions (4), Adoration of the Magi (2). Others are of less frequent occurrence: Jonah, Job and his friends, Christ's entry into Jerusalem, Tabitha. A remarkable example of the departure of a sculptor from a traditional type is found in the treatment of two subjects (Moses striking the rock, and the baptism of Christ) on the ends of a Gallic sarcophagus,¹ where the composition is entirely changed. Another not less striking instance of an effort to adjust a group to the field is afforded by the treatment of the miracle of the loaves and fishes on another Gallic sarcophagus.² This scene³ does not readily admit of lateral expansion, since Christ must



FIGURE 2.—CHRISTIAN SARCOPHAGUS IN S. APOLLINARE IN CLASSE, RAVENNA.

stand quite close to the attendants that he may touch the loaves and fishes. The sculptor of the present sarcophagus, however, in order to fill his field, separated the figures so widely that the Christ is forced to stretch out his arms in a painful manner. A similar unsuccessful attempt to represent a subject inappropriate to a field of a certain shape is observable on the well-known sarcophagus in the Lateran Museum representing the history of Jonah.

In this discussion no account has been taken of a class of sarcophagi, which show exact geometrical symmetry and which are chiefly, though not exclusively, to be found in Ravenna.

¹ G. 398, 9.

² G. 361, 3.

³ Cf. p. 133.

The reliefs are either modifications of the scenes representing Christ with his disciples or symbolic designs composed upon its general plan. In the former case the subordinate figures are reduced to six, four, or two. By placing the figures some distance from each other, and inserting a palm at the right and left, the scene is made to occupy the entire field. In the latter case the place of Christ is occupied by a lamb standing upon the Hill of Paradise, by a cross, or by the monogram of Christ within a circle (Fig. 2). Instead of the apostles, a lamb or a peacock stands at each side. In a few instances the centre is occupied by a vase from which the two peacocks drink. The field is not infrequently filled with a network of vines; these show an exact correspondence in form at the right and left of the centre.

IV

The preceding discussion has shown that the Christian sculptors, besides following in many cases the traditions of the pagan ateliers, were influenced (1) by a desire to secure a formal symmetry in the composition of the special scenes, (2) by a desire to secure a symmetrical arrangement of these groups on the relief field (*a*) by strongly emphasizing the centre, (*b*) by providing mutually corresponding terminal elements, (*c*) by disposing the intermediate subjects in mutually corresponding groups, and (3) by a desire to choose (or render) subjects appropriate to the shape and size of the field at their disposal.

These tendencies are not confined to or characteristic of any one geographical district. They are found in Gaul, Italy, Spain, and Numidia, although, as stated above, sarcophagi of a certain type occur most numerous in Ravenna. Neither can the chronological development of the tendencies be clearly made out, owing to the small number of monuments that can be accurately dated.

The principles here established are of great importance for the interpretation of the monuments of early Christian art.

Although they have occasionally been referred to by various writers,¹ and somewhat superficially and briefly discussed by Schnaase,² their influence has been overlooked by a class of archaeologists who lay great stress on the symbolic or allegorical interpretation of the remains of early Christian art. Several passages of recent scholars demand reconsideration on the basis of these principles. Garrucci,³ whose deductions often bear a strongly subjective character, makes the following statement regarding the bond of relationship connecting the various groups represented on a given sarcophagus: "Gli antichi artisti cristiani aver dovevano una ragione che regolava la scelta dei soggetti, da loro scolpiti sulla faccia di un sarcofago, o sopra alcuna volta cimiteriale, o intorno ad una nicchia di arcosolio; questo concetto dominante, questa idea superiore, che non era il semplice fatto, vestir doveva il carattere medesimo, che le particolari rappresentanze, le quale se non sono figurate in istorico senso, un altro certamente ne hanno, che profetico, dommatico ovvero morale si appella; e come le riunioni di soggetti in senso storico si seguono l' una l' altra, senz' altra ragione che la successione dei fatti, così le unioni in senso figurato star debbono insieme per quel concetto superiore che ha preseduto nella mente dell' artista alla loro scelta, e che è dovere del interprete andar cercando." De Waal further carries out the idea as follows:⁴ "In der That haben denn de Rossi, Garrucci u. A. für einzelne Sarcophagen die tiefere einheitliche Idee, welche der Wahl und Anordnung der Bilder zu Grunde liegt, nachgewiesen; wir glauben, dass sie sich durchgängig wenigstens bei den bessern Arbeiten nachweisen lasse, . . ." The judgments passed by Garrucci and De Waal are based mainly on the examination of the well-known sarcophagus from S. Paolo fuori le Mura, which now stands in the Lat-eran Museum. The correctness of their interpretation of this

¹ Cf. Schultze, *Archaeologische Studien*, p. 42, who in this connection cites Costadoni, *Il pesce simbolico*.

² *Geschichte der bildenden Künste*, 2d ed. One passage is cited below.

³ *Op. cit.* vol. I, pp. 45 ff.

⁴ In Kraus, *Real-Encyclopädie der christlichen Alterthümer*, II, p. 725.

monument is, to say the least, rendered very uncertain by Schultze,¹ who proposes quite a different explanation.

It is much more than doubtful that, as Garrucci and De Waal claim, the disposition of the subjects upon the sarcophagi was determined by the content ('concette dominante,' 'idea superiore,' 'tieferer einheitliche Idee'), and that they are to be read off like a homily ('omilia'). Garrucci begins with the assumption that the Christians followed pagan tradition in the disposition of the scenes. There is nothing improbable in this statement. That the pagans, however, always or even usually followed the historical order of events is by no means true; an examination of the sarcophagi published in volumes II and III of Robert's work shows that they were frequently uninfluenced by the historical order of events. An instance is the sarcophagus cover bearing reliefs illustrating the life of Oedipus.² It is not impossible, perhaps not improbable, that in some instances the Christians were more influenced by the idea than by the form,³ but that the considerations discussed above played an important, if not the chief part, is shown by the fact that sixty per cent of the reliefs⁴ occurring on Christian sarcophagi have had their choice, composition, or arrangement determined by such motives. This large percentage further shows that Schultze⁵ has gone too far toward the opposite extreme. 'Künstlerische Motive' which have affected nearly

¹ *Op. cit.* pp. 145 ff.

² Vol. II, pl. 60, no. 183.

³ Professor Marucchi stated to the writer that the sarcophagus from S. Paolo was probably the only one which gave evidence of a consideration of the content in the arrangement.

⁴ Leaving out of account the large class described on p. 143.

⁵ *Op. cit.* pp. 173 ff.: "Der Komplex von Sarcophag-Reliefs, über den wir verfügen, lehrt übereinstimmend, dass die Künstler sich fast ausnahmslos darauf beschränkten, aus den vorhandenen Besitzstücken eine bestimmte Zahl auszuwählen und diese gegebenen Sujets, ohne Rücksicht auf eine bestimmte einheitliche Idee oder einen fortlaufenden Gedanken, einfach mechanisch aneinander zu ordnen. Sogar künstlerische Motive scheinen nur selten massgebend geworden zu sein; der Vergleich der einzelnen Gruppen mit einander erregt vielmehr die Vermuthung, dass allein das Streben nach Variation diese oder jene Bilderfolge geschaffen habe, deren Gedankenreihe die Ausleger beharrlich und in bester Überzeugung zu erkennen sich abmühen."

two-thirds of the entire number of our extant monuments can scarcely be described as being 'of infrequent occurrence' ('nur selten'). The passage from Schnaase mentioned above reads as follows:¹ "Sie (*i.e.* the subjects represented on sarcophagi) sind immer in ungerader Zahl, das mittlere Bildwerk gewöhnlich etwas breiter und voller, so dass es sich als die mitte auszeichnet, während die beiden nächsten und dann wieder die beiden entfernten mit einander correspondieren, und zwar nicht durch ihren Inhalt, der vielmehr dabei gar nicht berücksichtigt zu sein scheint, sondern durch ihre Form." The words 'immer' and 'gewöhnlich' do not correctly describe the facts. The clause 'während . . . correspondieren' should be essentially modified in the light of the facts stated on p. 139. It has not been proved that *no* consideration was had for content in choosing the subjects. On the contrary, instances can be cited where it has entered into the question.²

Although, in the treatment of the sarcophagi, the sculptors often followed certain traditional modes of procedure in regard to the principles discussed in this paper, yet the application or non-application of these principles in special cases seems to have depended largely upon the choice of the artist, since some sarcophagi show no effort to apply them, besides offering in other respects noticeable exceptions to the usual mode of procedure. The arrest of Moses, for example, is regularly placed next to the striking of the rock, yet in two instances it is separated from it.³ Once the striking of the rock is not placed at the end.⁴ The composition of the scene is entirely changed in two cases.⁵ The *orans* is occasionally placed out of the centre.⁶ On two sarcophagi⁷ the composition is in striking contrast with the usual forms.

It remains only to draw a brief comparison between classical and Christian sculpture. Symmetrical balancing of forms and

¹ *Op. cit.* III, p. 90.

² G. 335, 2, 3, 4; 341, 4; 377, 3.

³ G. 378, 2; 377, 1.

⁴ G. 314, 6.

⁵ G. 351, 6; 367, 2.

⁶ G. 312, 3; 370, 2; 371, 2; 377, 3; cf. 371, 1.

⁷ G. 374, 4; and the well-known one in the Lateran bearing scenes from the life of Jonah.

masses has been noted by many writers¹ as a prominent characteristic of the Greek and Graeco-Roman art in all periods of its development. An important change, however, takes place in its nature in the course of centuries. The Greeks of the fifth and fourth centuries before the Christian era display a very delicate refinement in this respect. With them it is always subordinate to the idea. As the creative imagination grew weaker, and form gained in importance, the symmetry in the composition of works of art either became more and more formal or was entirely neglected. In many instances being made an end in itself, it becomes painfully conspicuous. The Christian sculptors, who belong to the last period in the development of ancient art, following the general tendencies of their times, show only mediocre skill or in many instances total lack of it, and their efforts often result in an almost mathematical exactness or in great crudeness. This fact renders more conspicuous the presence of the influence of symmetry in Christian art, and so not only gives greater weight to the evidence cited in this paper, but incidentally exemplifies a truth often lost sight of or neglected by specialists in Christian archaeology: namely, that in the interpretation of the monuments we must in all instances take into consideration the intimate dependence of Christian upon pagan art.

C. L. MEADER.

¹ e.g. De Cou, *Am. J. Arch.*, First series, vol. VIII, pls. ii, iii.



GENERAL MEETING OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

THE Archaeological Institute of America held a general meeting, for the reading and discussion of papers, at New Haven, December 27, 28, and 29, 1899. The meeting was well attended, and the papers awakened great interest.

Resolutions were passed to urge the United States government to modify the existing regulations affecting the importation of objects of archaeological interest, and to care for the preservation of monuments of the earlier inhabitants of this country. A resolution was also passed thanking the authorities of Yale University for the hospitable reception given to the Institute.

There were in all six sessions, at which addresses were made and papers presented. Brief abstracts of the papers, prepared for the most part by the writers, follow. Several of these papers are published in full in this number of the JOURNAL, and others will be published in later issues.

WEDNESDAY, DECEMBER 27. 3 P.M.

President D. C. Gilman, of Johns Hopkins University, Vice-President of the Institute, presided. Papers were read as follows:

1. Professor W. C. Lawton, of Adelphi College, *The Rise of Drama*.

Choral song and march, out of which drama sprang, is as old as the Homeric poetry (paean of victory, *Il.* X 391-394; paean of worship, *Il.* A 472-474), doubtless as old as the consciousness of kin in a barbarous clan. The vintage song and dance is depicted

on Achilles' shield, but Dionysus is not yet leader of the chorus. The dramatic element appears early in the Eleusinian mystery-play of *Demeter* and of *Zagreus*, and is combined with dancing at Delphi, in the Cretan worship of Zeus, etc.

But these more dignified cults seem remote indeed from the mere caperings of rustics at Icaria. Dionysus there reveals no mystic features, but is a mere merry lord of misrule. *Τράγος* is as unheroic a word as "billy goat." The rollicking chorus in a ring, the uproarious music and banter, the smeared faces, even the "interlocutor," find a parallel, so close as to be undoubtedly misleading, in our "nigger minstrels."

This mere diversion of the annual carnival-time, nothing more, was transferred to Athens. To Solon's cutting rebuke, Phrynichus only replied, "It all goes, in sport!" It can hardly be proved that any real tragic element appeared before Aeschylus. If Thespis had left any libretto worthy of the name, surely something would have survived, at least to Alexandrian times. We have not one word.

The brooding, pious nature of Aeschylus, for a generation that had seen a miracle in Xerxes' retreat, created tragedy, borrowing for its adornment from epic and from Dorian choral lyric. Phrynichus seems to have attempted a historical and contemporary school of drama, which was short-lived. The comic element never wholly left drama, and outlasted the pious Aeschylean spirit. The Greeks, and especially the Athenians, were too audacious intellectually to be a truly reverent folk.

In general we should accept most literally Aristotle's dictum, "From trivial plots and ludicrous phrasing, as it grew out of the satyrplay, tragedy acquired *late* a serious tone." "Late" is not in the sixth century, during the life of the founders.

2. Professor Francis W. Kelsey, of the University of Michigan, *The Stage Entrances of the Small Theatre at Pompeii*.

[The wall at the back of the stage of the Small Theatre at Pompeii is pierced by five doors. The speaker presented several considerations in favor of the view that the two doors near the ends, which are smaller than the rest, were designed primarily to give access to the *tribunalia*; for in this theatre the *tribunalia* were shut off from the seats of the *cavea* by sloping walls, and were reached by means of steps leading up from the stage.]

3. Professor James M. Paton, of Wesleyan University, *The Story of Alcestis in Ancient Literature and Art*.

The earliest literary version of the story of Alcestis has been recovered by the reconstruction of an episode in the Hesiodic *Eoëae*. The essential features were the aid of Apollo, which enabled Admetus to win Alcestis; the wrath of Artemis, which required the life of Admetus; the devotion of Alcestis, and her return to life, by the favor of the gods of the lower world, as the reward of this devotion. The Attic dramatists, Phrynichus and Euripides, omitted the aid of Apollo, substituted for the wrath of Artemis the will of the Fates, and introduced Heracles as the forcible rescuer of Alcestis. The later literature, so far as can be gathered, while preserving as a basis the old version, adopted some of the features of the new, and in particular attributed the return of Alcestis to a journey of Heracles to the lower world and his intercession with the rulers of the dead. In general, however, the special features of the myth fell into the background, and the characters faded into mere types of piety and devoted love. The myth is not popular in the earlier art, and no unquestioned representations of it have survived. In the later art it is chiefly found on funeral monuments, especially sarcophagi, and in general in forms which show only an acquaintance with the popular tradition, not with either of the characteristic literary forms of the myth.

4. Professor Frank Carter, of McGill University, *On Some Minor Points in Homeric Archaeology*.

[The paper dealt with disputed nautical technical terms. The evidence is mainly literary, and is affected by the following considerations. Technical terms are (1) etymologically significant, (2) metaphorically transferred, (3) never exact synonyms, (4) retentive of meaning. *κλῆις* is *thole-pin*, not *thwart*, *θ* 37, 53. *ζυγόν* is *thwart*, not *lower beam*, *ι* 99, *ν* 21. *θρήνυς* is not *thwart*, nor equivalent to *ζυγόν*, nor *stretcher*, nor *bench* or *deck*, nor *longitudinal bridge*, but *steersman's deck* at the stern, *Ο* 729; cf. schol. AD. *ἱκρία* are *bulwarks*, not *deck*. *σχεδίη* is not *boat*, nor *double-decked raft*, but *single raft with wattled bulwarks*. In the raft, the *ἀρμοῖαι* are not *dowels*, nor *cross-pieces*, but *joints*, cross-pieces being assumed; *στάμινες* are *uprights*, not *struts*; *ἱκρία* in the raft are not *uprights*, but *bulwarks*; *τορνόσεται* means *round off* by making the middle timbers longer. The construction of the raft is as follows: (1) floor; (2) frame of bulwarks, — uprights and gunwale; (3) spars and steering paddle; (4) wattle between the uprights; (5) brushwood, spread for dry sitting; — all simple axe-work. The rigging of the raft was probably the same as that

of small boats. ἐπίκριον, *yard*, points to the lateen rig; κάλοι are *brail-ropes*, not *halyards*; ὑπέραι are not *braces*, but *halyards*; μεσό-δμη is a *cross-thwart*; ἱστοπέδη is not a *mast-box*, but a *support on the floor*; ἐπίτονος is not *back-stay*, nor *halyard*, nor *traveller*, but a strip of hide fastened to the yard, wound several times round the mast, serving the purpose of a traveller (so Suidas, I, 2, 477).]

5. Mr. E. P. Andrews, of Cornell University, *The Inscription on the East Architrave of the Parthenon*.

[The manner in which the inscription was deciphered was explained with the aid of a careful representation of the traces on the building.]

6. Dr. T. W. Heermance, of Yale University, *A New Class of Greek Geometric Pottery*.

The primitive hand-made pottery of the Greek mainland and the islands, with incised ornament, is followed by a class of vases, equally *hand-made*, with *painted* decoration. This decoration, largely derived from incised work, is essentially *rectilinear-geometric*, though concentric circles are occasionally found, and on late specimens the spiral. It is done in a blackish or brownish paint, usually dull, but sometimes *lustrous*. The clay, which varies in different localities (indicating more than one centre of production), is covered with a whitish yellow slip — possibly a reminiscence of the early marble bowls, etc. Pottery of this sort has now been found at Aphidna, Thoricus, Athens (Acropolis), Eleusis, and on Aegina, Syra, Melos. Finds in Thessaly and Crete display clear affinities to it. It is itself the prelude to the early *wheel-made* pottery with geometric decoration, as seen on Melos, Amorgos, etc.

7. Professor Rufus B. Richardson, Director of the American School of Classical Studies at Athens, *The Excavations of the American School at Athens on the Site of Ancient Corinth* (read by Professor Perrin).

[An account of the excavations and their results, and an appeal for further funds. The substance of the paper, which treats especially of the fountain of Glauce, and of Pirene, and was fully illustrated by diagrams, will be published in an early number of the JOURNAL.]

WEDNESDAY, DECEMBER 27. 8.15 P.M.

President Gilman, of Johns Hopkins University, Vice-President of the Institute, presided.

Hon. Simeon E. Baldwin, of Yale University, President of the Connecticut Society of the Institute, made a brief address of welcome.

Professor Charles Eliot Norton, of Harvard University, Honorary President of the Institute, delivered an address on *The Work of the Archaeological Institute of America*. The address is published in full above, pp. 1-16.

THURSDAY, DECEMBER 28. 9.30 A.M.

Dr. Talcott Williams, of Philadelphia, Vice-President of the Institute, presided.

1. Address by Dr. Williams.

2. Mrs. Sara Y. Stevenson, of Philadelphia, *Some Points of Museum Policy* (read by Professor J. R. Wheeler).

In view of the powerful support given to archaeological research by foreign governments, and to their jealous policy with regard to such interests, only the broadest policy of coöperation among our institutions of learning and their patrons can enable America to compete with success, and to obtain a share of the scientific material which is now recognized as most important in the educational equipment of a nation, and which in twenty-five years from to-day will be exhausted. And yet at a time when the German government, always keenly alive to the importance of such interests, is appointing a scientific attaché to its diplomatic agency in Cairo, our government not only disregards these interests, but actually opposes serious obstacles in the way of those institutions, associations, and private individuals who, by their own efforts and liberality, would supply the needs of our public museums.

Prior to 1897, antiquities antedating the year 1700 were admitted free of duty, even though imported by individuals. Those who drafted the former tariff law realized that, by encouraging private collectors, they were practically working toward the enrichment of our public institutions. It is obvious that eventually most private collections find their way into our great museums.

The present law has rescinded this privilege. In doing so it

has limited the rights of public institutions by requiring from the importing corporation an oath and bond, the text of which asserts that the objects imported are being brought in for permanent exhibition at a fixed place, the name of which must be given. The letter of this law, therefore, places a check upon a free exchange among museums; as the importing corporation is permanently responsible for any object imported, and cannot willingly incur the risk of forfeiting its bond, should such an object, exchanged with another institution, be at some remote time improperly used.

This law also severely handicaps the work of any individual or society having in view the distribution of scientific material among museums. And such far-reaching coöperative scientific work as that undertaken by the Egypt Exploration Fund or the Egyptian Research Account in England would, under existing circumstances, be impossible upon our soil.

As excavations produce many duplicates, the imposed necessity of retaining an accumulation of such material in one institution, when others might benefit by their possession, is clearly a waste in brain-power, time, and money. Not only is valuable material thus locked up, but institutions are driven to the duplication of costly scientific expeditions in order to supply themselves with material which could be acquired by means of exchange with fellow-institutions, or by coöperation with such societies as are in successful operation abroad or with public-spirited patrons who might be induced to furnish funds for scientific expedition with a view to dividing the results thereof according to the needs of various institutions.

It is my opinion that with the widespread public interest taken in archaeological discovery in this country, were the government to encourage and facilitate the pursuit of scientific expeditions, America could hold its own even against the serious competition now existing. A broad system of coöperation between the museums of this country could be established, which must yield maximum results at minimum cost, and which must strengthen our position abroad when in the presence of government competition. At present, various American bodies and patrons of museums, instead of presenting a united front, are rivalling each other. The result is a diminution of American influence with regard to concessions, and a raising of prices with regard to purchases.

The first step in the development of a policy of broad coöperation and mutual helpfulness, is to obtain from the United States an amendment to the present oppressive law governing the free impor-

tation of antiquities, and the facilitating of all *purely scientific* enterprises having for their object the enrichment of the museums of this country with scientific material, and the promotion of original research.

3. A letter from Mr. Edward Robinson on *Some Recent Acquisitions of the Boston Museum of Fine Arts* was read by Professor J. R. Wheeler.

[These objects will be described in the *Annual Report* of the Trustees of the Museum, and later in the news department of this JOURNAL.]

4. Mr. Edgar James Banks, of Cambridge, Mass., recently United States Consul at Bagdad, *The Proposed Excavation of the Babylonian Ruin Mugheir, or Ur of the Chaldees, the Birthplace of Abraham* (read by Professor Sterrett).

To the historical or Biblical student the ruin of no ancient city should be of greater interest than Mugheir, now identified with Ur of the Chaldees (Gen. xi, 31), the birthplace of Abraham, the original home of the Hebrew people. The ruin consists of an oval-shaped group of mounds, half a mile in diameter and six miles below the Euphrates, opposite the modern Nasarieh. The principal feature of the group is the ruin of an ancient temple of Sin, the Moon-God, now projecting seventy feet above the plain. In 1854 Mr. J. E. Taylor, the English Consul at Busreh, dug a few trenches about the temple, revealing two stories of the ancient structure. In the four corners of the second story he found the inscribed clay cylinders deposited there by Nabonidus, the last king of Babylon and the last restorer of the temple. The inscription is of particular importance because the prayer with which it closes established the identity of the Biblical Belshazzar.

"May reverence for thy great divinity dwell in the heart of Belshazzar, my first-born favorite son. May he commit no sin; with the fulness of life may he be satisfied."

Near the temple Mr. Taylor uncovered the perfect walls of a house, and in various parts of the mounds a few graves containing pottery, gold and silver beads, rings, bracelets, cylinders, cones, and tablets were opened.

Inscriptions from other Babylonian ruins teach that at least three dynasties of kings lived at Ur. In the first was Lugal-kigub-nidudu, 4000 B.C., or earlier. Ur-Gur, the founder of the second dynasty,

lived about 2800, and a king of the third dynasty was Kudur-mabuk, possibly the Chedorlaomer of the Bible. The inscriptions also mention at least five temples which stood at Ur.

We may therefore believe that Mugheir contains the remains of the palaces of three dynasties of kings, five temples, and their libraries of contract and astronomical tablets and the early literary productions. Here may also be the graves of the great kings of Babylonia and Assyria. The ruin is one of the most promising of all Mesopotamia.

The work which Mr. Taylor began, the proximity of the mound to the modern Nasarieh, its situation on the navigable part of the Euphrates, would enable the excavator to proceed to the work at a great saving of time and expense. While \$12,000 would keep a large force of workmen for one year, with \$50,000 the work could be completed in two years.

In European countries the greatest collections of the ancient monuments are found in the various national museums; the valuable remains of this ancient ruin, which may be brought to this country, should be placed in our National Museum at Washington. Correspondence regarding the proposed excavations is solicited.

5. Rev. Dr. John P. Peters, of New York, *Excavations at Mugheir* (read by Professor Sterrett).

While I am not willing to accept implicitly Mr. Banks's statement about the relation of Ur to the children of Israel and to Mount Sinai, it is, nevertheless, a matter worthy of attention that Ur was a very ancient seat of the worship of Sin, and it is beyond question that it was a city of great importance, both from the religious and from the political point of view, in the earliest Babylonian period.

I visited Mugheir toward the close of May, 1890. I found several inscribed door sockets lying on the surface of the ground, as well as large numbers of inscribed bricks. All of the door sockets but one had been defaced by the Arabs. Large numbers of bricks were piled up ready to be removed, for the people of Nasarieh had begun at that time to use these ruins as a brick quarry. The ruins are by no means as extensive as those at Nippur, Babylon, or Warka (Erech). Ancient remains lie practically on the surface, not covered by an immense mass of debris of later periods, as in the case of the cities above mentioned. Excavations at this site reach old material at once.

In addition to the great value of the inscribed material which we have every right to expect to find there, it is probable, also, that we

shall find remains of ancient art, for Ur was closely connected with Sirpurla (Telloh). The ziggurat at Ur also differs in its relation to the temple about it from the ziggurat at Nippur or that at Erech, both of which belong to the older period, and much more from the ziggurat at Borsippa, which belongs to the later period. The ziggurat at Ur was not raised on an enormous terrace or platform as at Nippur and Erech, but was, apparently, surrounded by a wall, constituting a *temenos*, or sacred precinct.

The excavation of this temple, which would be a comparatively easy work, would be of great importance in the study of the construction of Babylonian temples and the history of the development of the Babylonian religion.

6. Dr. Talcott Williams, of Philadelphia, read a *Field Report of the Babylonian Expedition conducted by the Babylonian Committee of the Department of Archaeology and Palaeontology of the University of Pennsylvania*, compiled from the field reports of Dr. Haynes and the notes published by Dr. H. V. Hilprecht.

The present expedition, like the others which have been in progress during the last ten years, owes its existence in the first place to the energy, the enthusiasm, and the liberality of Mr. Clarence H. Clark, Mr. E. W. Clark, and Dr. William Pepper, and others. In the grant of the necessary firman, in the arrangements made to facilitate the work of the expedition, and in the assistance extended both by the Government of his Imperial Ottoman Majesty, and the director of the Imperial Ottoman Museum, Hamdi Bey, the committee and its expedition have received at every stage liberal, enlightened, and considerate treatment, which has been its experience during ten years of exploration. In all this period his Imperial Majesty, the Sultan, has shown a liberality and interest in the work of American exploration most unusual in archaeological research, and for which all American scholars must be grateful. The committee elected Mr. E. W. Clark chairman, who has had general charge from the beginning of the work, which he was the first to suggest twelve years ago. It was decided, as a large proportion of the expenditure on field work consists of the outlay necessary for the American director and his assistants, that the work should be carried on for two years instead of three, thereby adding nearly one-half to the sum which would be devoted to direct excavation and the payment of Arab workmen. Under this plan the number

of men employed in digging has been nearly doubled, and from 200 to 400 men have been at work from the time Dr. Haynes began his labors last February, until the present. These labors will continue until next May.

The expedition, as originally organized, consisted of Dr. Haynes as director, with Clarence F. Fisher, a graduate of the School of Architecture of the University of Pennsylvania, and Valentine Geere, an English architect. Dr. H. V. Hilprecht left Philadelphia in November, and expects to take charge of the general supervision of the field work, which has been closely followed by him during its progress.

The first four months of exploration were devoted to the southwestern part of the ruins, to the west of the ancient canal which divides Nippur into two parts, and the search for coffins. At the close of this period, June 10, thirty-seven cases were packed with the results of the exploration, whose trenches had been carried to the depth of 60 feet. These consisted of 976 perfect tablets and 3797 imperfect tablets of various periods, or 4773 in all. Among them are two rectangular inscribed prisms $7\frac{1}{2}$ inches long, an octagonal and a pentagonal inscribed prism. There were found twenty-two seal cylinders, two conical seals, three disks, a vase of wood, twenty Hebrew inscribed bowls, ten perfect and five imperfect bronze bowls, mirrors, and other objects. Thirteen stelae of baked brick were found, and one fragmentary stele of the same sort. Other objects yielded were silver and bronze rings, bracelets, nose and earrings, anklets and beads, coins, pieces of jade, a gold plate, 9 cm. by 4.4 cm., from the coffin of a Neo-Babylonian woman, five lamps and other objects of the Sassanian period. Graves were opened to the number of 431. Of these 283 contained the skeletons of adults, 54 of infants, and 82 of youths; over 30 skulls have been procured; 12 graves contained two skeletons, 3 three, 1 four, and 1 burial pit was exhumed holding 43 skeletons. The coffins were of the types already found and described as "slipper," "bath-tub," "box," and "bread tray," 94 being under the first category. The orientation of the coffins was carefully observed, and of the total number 58 were with the head to the northeast or east-northeast. Of the coffins 105 contained jars, bottles, or cups, and 101 some form of personal ornament. No coffins were found below the depth of 25 feet, and some were discovered on the removal of only one foot of debris.

In June, as the heat increased, the work was transferred from the general exploration of the region west of the canal to a systematic excavation of the eastern and northeastern part of the temple area,

continuing the examination suspended in 1896. This is a part of the temple area in which much remains to be done. The work of laying bare this part of the temple area has now been in progress through five months with an average of some 250 to 300 men at work. The walls and other structures laid bare early in this period were preserved until the architects, Messrs. Geere and Fisher, were able to measure and complete them, a work which has been in progress during October and November. Jewish remains, post-Christian, were found in this exploration at about a depth of 8 feet. These remains included bowls, of which a large number have already been found at Nippur. An inscribed human skull was also found, similar to specimens in Berlin and London. At this level an Athenian coin and the inscribed fragment of a diorite statue, evidently brought up from a lower period, were also discovered. As the exploration went on, the level of Ur-Gur, with its crude bricks, was first reached, and later that of Naram-Sin. In the course of these excavations a broad area of the Naram-Sin pavement has been laid bare, and it is intended to continue the work of exposing this pavement. Early in the work of the excavation two inscribed stone vases were found, one with twenty-five characters and another with eighty, and a stone stele.

Later, as the pavement of Naram-Sin was reached, a small head of yellow marble in beautiful preservation and a torso of black stone badly broken were discovered. A large vase of black stone, 2 feet, $1\frac{1}{2}$ inches high, and 1 foot, $5\frac{1}{2}$ inches across, with eleven lines of inscription, while broken, has been discovered complete on the level of Ur Ninib. An interesting pedestal of crude bricks laid in mortar of straw, $7\frac{1}{2}$ feet high, $14\frac{1}{2}$ feet by $8\frac{3}{4}$ feet at its base, and $8\frac{1}{2}$ feet by $2\frac{3}{4}$ feet at its top, has been laid bare at the Ur-Gur level. The suggestion is made by Dr. Haynes that it was intended as a pedestal for statues. A bronze saw, bronze and silver nailheads of the type described by Dr. Peters, and fragments of statues have also been found. The broken condition of the statues confirms the view which has already been expressed by Dr. Hilprecht, that in 2280 B.C. the temple was sacked and everything of interest carefully broken during the reign of Hammurabi. In the strata over the eastern corner of the temple, near where, in 1896, the torso of an inscribed statue in diorite had been found, the fragment of a marble vase of the ancient King Lugal-zaggisi was discovered, supplementing in a most welcome manner the text of the mutilated passage in the first column of the published long inscription. Not less important are two complete bricks, each containing in three sections the legend of

a hitherto unknown patesi of Nippur, Lugal-sur-su, who apparently lived in the fourth millennium before our era. From the same trenches came the large fragment of a brick of Ashur-etil-ilani, son of Ashurbanapal, of Assyria, who, like his two predecessors, repaired a portion of the temple, and, as was shown by the results of the first year's campaign, ruled even in Nippur several years after Babylon had already proclaimed its independence under Nebopalassar. Later researches at or near the level of Naram-Sin have brought to light a polished disk of marble, 25 inches across, with an archaic inscription, another of bluish-gray stone schist and probably argillite, 10 inches in diameter, bearing an inscription of King Garne, a copper knife-blade below the Naram-Sin level, a small prism of lapis lazuli with a human head in low relief, brick stamps of Naram-Sin, and bricks of Ramannadin-Ahe and the Patesi Sirgullab. In the last fortnight reported seventy tablets were unearthed.

The courage, energy, and self-sacrifice shown by Dr. Haynes and his wife in continuing work on a desolate mound, where the thermometer is daily registering from 100 degrees in screened shade, even reaching 110 or 115, is a sacrifice for archaeological science which has rarely been equalled and is not likely to be repeated. The work of excavation is steadily progressing, and in May the third campaign of the University of Pennsylvania at Nippur will have been completed. For the first four months the finds of tablets averaged about 1000 a month. During the last five months spent on the temple area the inscribed objects of various sorts have been smaller in number but more valuable in character.

7. Professor D. G. Lyon, of Harvard University, *The Harvard Semitic Museum*.

This museum was founded in 1889 by a gift of \$10,000 from Jacob H. Schiff, Esq., of New York, and was formally opened in a room of the Peabody Museum in May, 1891. There have been many additional gifts, both of money and of material.

The aim of the museum is to bring together such objects as illustrate the instruction offered in the University, provide advanced students with the means of research, and show to visitors in general something of what the Semites have done for civilization.

The materials on hand comprise manuscripts (Arabic, Hebrew, and Syriac); photographs; Babylonian stone seals and clay books; Cufic inscriptions; Semitic coins; plaster casts of monuments from Assyria, Babylonia, Phoenicia, Palestine, Arabia, Moab, Persia, and the region of the Hittites; and a large collection illustrating Pales-

tinian and Bedouin life, and the physical features, the fauna, and the flora of Palestine.

In the year 1899 friends gave to the University nearly \$20,000 for adding to the collections, and Mr. Schiff gave \$50,000 for the erection of an independent Semitic Building. In this building the Semitic instruction, library, and museum will all be brought together under one roof. The construction will probably begin in the summer of 1900.

8. Professor F. B. Tarbell, of the University of Chicago, *A Signed Cylix by Duris in Washington, D.C.* (read only in abstract).

This cylix, bought by Thomas Wilson, LL. D., of the United States National Museum, now the property of Boston Museum of Fine Arts, was found at Orvieto in the winter of 1885-86. Interior: Dionysus before an altar, with the signature, Δῶρις ἔγραψε. Exterior: a dance or revel of satyrs and maenads, with the inscription Ἴπποδάμης καλός.

Dr. Wilson is also the owner of a cylix signed by Tleson, son of Nearchus. This was found at Vulci.

9. Mr. George H. Chase, of Harvard University, *Terra-cottas from the Argive Heraeum.*

The greater part of the terra-cottas from the Heraeum at Argos consists of a series of standing and seated female figures, which show a long development from the rudest beginnings down to the period of advanced archaism. We can distinguish three classes: (1) Primitive Argive, undecorated figures with the "bird face"; (2) Tirynthian Argive, much decorated figures with the "bird face"; and (3) Advanced Argive, much decorated figures with the human face.

This decoration consists of a great number of bands of clay stretched across the breast, a number of bosses or rosettes on the right shoulder, and minor applied parts, such as the hair, earrings, and headdress. The bands represent in many cases necklaces, but often, also, the fold of the chiton. The bosses undoubtedly represent dress pins.

These figures are at least contemporary with the Mycenaean Age, for Mycenaean figures were found with them; but in their earliest form they antedate the Mycenaean civilization. They are more naturalistic than the Mycenaean figures, and their painted decoration consists usually of line designs upon a white slip, not of glaze color like that of the Mycenaean specimens.

Finally, it is impossible to consider all our specimens as representations of Hera. We have here, in fact, exactly as in the female figures from the Acropolis, a type. It attained its fullest development at Argos, and may therefore properly be called the Argive type of terra cottas.

10. Miss Florence S. Tuckerman, of Youngstown, Ohio, *The Flowers of Greece*.

The flowers of Greece are wonderfully varied and beautiful. The scutellaria, daisy, fly-orchid, speedwell, pale hyacinth, grape-hyacinth, asphodel, leontodon, iris, anemone, narcissus, cyclamen, thyme, and crocuses are but examples. Nowhere else is a flora so rich in beauty and legend.

The Greek anthemion seems to be a counterpart of the crenate scallops mottled on the cyclamen leaf. The bright-colored flora, combined with the bright skies, may have influenced the Greeks to wear bright colors in dress and to stain their statues; we are influenced by climate to use dark clothing in winter, but in summer, when the skies are clear and flowers are in bloom, light pink and blue and green and yellow dresses seem appropriate.

The Parthenion and lily with A I upon its petals (Theoc. X, 28), which Fellner (*Homerische Flora*, p. 53) recognizes as possible, still await discovery. The books on botany at the American School at Athens have no diagrams, nor is other apparatus for botanical study accessible there. Tourists and civilization are destroying many delicate species. The field lies open for new discoverers.

11. Dr. Joseph Clark Hoppin, of Bryn Mawr College, *The Death of Argos on a Red-figure Hydria*.

Red-figured Hydria of the Attic "severe" style, acquired by me in 1898; briefly described by Petersen (*Röm. Mitth.* 1893, p. 328, No. 17). Upon it are represented Hermes with drawn sword attacking Argos, Io as a heifer, with Zeus, Hera, and a priestess as spectators. In the field are bushes, a column, and an altar. The scene follows the same version as that treated by Bacchylides in his nineteenth ode, and is far more completely represented than on other contemporary vase-paintings. The style is allied to that of Brygos. From literary evidence it seems certain that the action of the myth took place in a grove somewhere near Argos, which is clearly represented on the hydria by the bushes in the field. Also the presence of a column and an altar (conventional symbols of a temple in vase-painting) shows that a temple was intended, which, in view of

the location of the grove, is evidently the Argive Heraeum. The Prometheus of Aeschylus and the nineteenth ode of Bacchylides are the two most important literary versions of the myth. The former follows the later version in that Io was conceived as a "hornéd maiden," and the latter the earlier, where Io is still a heifer. The influence of the dramatists, especially Aeschylus, caused Io to be represented as a maiden in the later art. As both the hydria and Bacchylides' ode follow the earlier version, it is probable that both are earlier than the Prometheus. The style of the hydria warrants our dating it immediately after the Persian wars, and the ode is probably only a few years later. The Prometheus on the other hand is clearly younger, and the date often assigned to it, 470 B.C., is thus extremely probable.

12. Miss May Louise Nichols of Vassar College, *Geometric Vases from Corinth*.

In the excavations at Corinth in 1898 and 1899 some geometric vases were found; the style of decoration, which is the simplest form of geometric ornamentation, places them among the earliest as yet discovered. There are some peculiarities of shape and technique which make probable the supposition that they are a local product. They resemble most closely the vases found in the lowest layer of geometric graves at Eleusis.

Their importance lies in the bearing they have upon the ethnological problem involved in the origin of the geometric style in Greece, but the full value of the evidence cannot be determined until much more has been done at Corinth. Realizing the value of the small finds in the excavation of such a site, it is to be hoped that, when the little railroad is no longer needed near the spot where the vases were found, the whole region may be carefully excavated. It seems quite possible, from the nature of the case, that this grave is but the beginning of a geometric necropolis such as was found at Eleusis. It is all important, therefore, that it should be ascertained whether the same relation to the Mycenaean civilization holds true here. In the work, every minute detail should be accurately observed and noted by a trained man, that all possible evidence as to burial customs and other problems involved may be obtained. Since it is now proved that virgin soil has not been reached at that spot, it would seem desirable to make a trial, to find out whether below the geometric civilization lie buried remains of the Mycenaean. Nothing in the later Roman city could surpass in interest the light which may thus be thrown on the early history of Greece.

13. Mr. S. O. Dickerman, of Yale University, *An Archaic Inscription from Cleonae.*

The stone is a fragment of poros found at Ἁγίος Βασίλειος and said to have been brought from Cleonae about two miles away. It is now in the Central Museum at Athens. Parts of fifteen lines, inscribed on three faces, remain.

The archaic period is indicated by the *boustrophedon* order, by the presence of Digamma and the closed sign for the rough breathing, and by the use of the sign Tsade to express the sibilant. The alphabet is peculiar in representing ε by Ξ, η by ⚡, and spurious α by Ξ l. It resembles the alphabet of Corinth and differs from that of Argos in the forms of Beta, Delta, and probably Lambda and Gamma, and in using ⚡ as η. It resembles the alphabet of Argos and differs from that of Corinth in using straight Iota and in expressing ε by Ξ, spurious α by Ξ l, and spurious ου by ⊙. Nineteen different letters are present. Gamma, Kappa, Upsilon, Phi, and Psi do not appear.

The inscription contains regulations about defilement and purification, and evidently refers to the ceremonies of purification and propitiation by which a murderer was restored to society.

THURSDAY, DECEMBER 28. 3 P.M.

Charles P. Bowditch, Esq., of Boston, Vice-President of the Institute, presided.

1. Address by Charles P. Bowditch, *American Archaeology.*

The little interest taken in American Archaeology is explained by the fact that archaeology has until lately concerned itself with the artistic values of products, but now investigates the progress of the producer. Like desires and similar environments produce like results, and, therefore, the archaeology of uncivilized races is of value in studying that of the civilized races. Much more, then, should the archaeology of the Maya and Nahuatl races be studied — races which were advanced in the paths of civilization when discovered by the Spaniards. Of these the Mayas had reached a higher civilization.

Our knowledge of these races comes from Spanish chroniclers, native writers, inscriptions on ruins, and tombs. The Spanish writers can be generally trusted in regard to the native customs and modes of life; the native records, inscriptions (as far as known and deciphered), and the tombs give trustworthy evidence. The Mayas

were excellent carpenters, masons, potters, weavers, paper makers, and merchants. Their domestic and social life was of a high order. They excelled as builders and road makers. Their astronomical knowledge and powers of numeration were remarkable. The Maya and Nahuatl calendar is admirable and unique. They had well-nigh, if not actually, reached a phonetic system. The civilization brought by the Spaniards was little if any higher than the native civilization.

Investigation should be pursued in two directions: Explorations of the ruins scattered over Central America, and the study of the Central American languages.

2. Professor H. W. Haynes, of Boston, *Recent Progress in American Archaeology*.

[This paper is published in full above, pp. 17-39.]

3. Professor G. Frederick Wright, of Oberlin College, *Archaeological Discoveries in Ohio*.

Ohio is the main centre of prehistoric earthworks in the United States. There are more than ten thousand in the state that are worthy of notice. The majority of these are simple mounds of earth from 15 feet to 70 feet in height. The enclosures are, many of them, of large size and great complication. Two squares at Marietta contain 57 acres and 25 acres respectively. The works at Newark exhibit almost every form and include large areas. Others of great interest are found at Portsmouth, and near Chillicothe, where seven extensive enclosures are enumerated. Fortifications completely surrounding hilltops are found at Fort Hill, Fort Ancient, near Hamilton, and in two or three other places. Near Portsmouth there is an Elephant mound, near Granville an Alligator mound, and in Adams County a Serpent mound. This is 1300 feet long, measuring all its curves from the tail to the head. In the Hopewell enclosure near Chillicothe there were found large quantities of implements of obsidian from the Rocky Mountains, 2000 miles away; copper from Lake Superior, 450 miles distant; mica from North Carolina, 400 miles away; and shells from the Gulf of Mexico, 500 miles distant. The copper was all hammered. Out of it were made many ornamental rings and finely cut stencil plates of different patterns. Among them were several Swastika crosses. On a shell was a fine engraving of a paroquet whose habitat was much farther south.

Of the new facts presented, the most important were some tertiary shark teeth from the Atlantic coast, found in northern Ohio; a

beautifully sculptured mastodon on a piece of slate, showing the co-existence of man and the mastodon in America. There was also presented a flint case with artificial flakings from undisturbed glacial gravel at Massilon, Ohio. This is on the Tuscarawas River, in the valley of which was found the celebrated Mills implement a few years ago, in similar circumstances. The similarity of this to the polacoliths from France, and of the rings and the Swastika crosses to European objects, indicate ancient unity of the races.

4. Professor F. W. Putnam, of Harvard University, *Ancient Pueblos of Chaca Cañon.*

Professor Putnam gave a brief description of the explorations carried on by the Hyde Southwestern Expedition in connection with the American Museum of Natural History. With the aid of lantern illustrations he described several of the ruined pueblos, especially Pueblo Bonita, where extensive explorations have been carried on for the past three years. The structure of the ancient pueblos was shown by a series of pictures. The great antiquity of Pueblo Bonita was illustrated by views of the excavations showing the stone walls of rooms buried under the accumulation of débris. In other places walls were excavated which had been covered by several feet of clay deposited in the cañon. Many of the lower rooms of the pueblo had been filled up, and other rooms had been built over them. In some places there were two tiers of rooms below the present level of the cañon. The method of building the stone walls had changed from the time of erecting the older portion to that of building the later. All the evidence indicates great antiquity for the beginning of this pueblo; and there is no doubt of its long-continued occupation.

This expedition, which is supported entirely by the brothers B. T. B. Hyde and Fred. E. Hyde, Jr., of New York, is planned for long-continued and exhaustive research for the purpose of learning the true history of these prehistoric ruins in New Mexico, and the relation of their builders to the pueblo peoples of a later period and of the present time.

5. Professor Allan Marquand, of Princeton University, *Two Windows in the Cathedral of Florence.*

During a hurried visit to Florence, in 1896, I succeeded in photographing two windows in the cupola of the cathedral, which so far, as I am aware have not been reproduced before. One is a Coronation of the Virgin, designed by Donatello, in 1434, and executed by Bernardo di Francesco, assisted by Paolo Uccello. The other repre-

sents the Resurrection of Christ. This window was executed by Bernardo di Francesco in the year 1443, but the name of the designer is not recorded in the cathedral archives. There is, however, some presumptive evidence in favor of Ghiberti as having furnished the design, and this hypothesis would seem to be supported by the style of the design and composition. The window has also been attributed to Paolo Uccello. The window, however, exhibits a decorative sense superior to that exhibited by Uccello in his few but well-known frescoes. However, it is known that Uccello, as well as Ghiberti, designed windows for the cupola of the cathedral, and when the style of these windows is better known, the attribution of the Resurrection window may be made with greater certainty.

6. Professor J. R. S. Sterrett, of Amherst College, *The Cappadocian Troglydites*.

The volcanic region west of Mt. Argæus, with its thousands of tufa cones, discovered by Lukas at the beginning of the last century, contains countless chambers excavated in the soft rock. They were used as temples, chapels, dwellings, tombs, and dove-cotes. Many of the chapels, especially in the interior, display some attempt at architectural and decorative effects, and many of the walls are still covered with paintings. The entrance is usually on a level with the ground, but often high above the ground. In the latter case it was reached by ladders consisting of two parallel rows of niche-holes cut in the rock. Story rises upon story, the higher story being reached through a chimney-like stairway with niche-holes for ascending. The cones with their chambers and windows are virtual shells. The present inhabitants are still semi-Troglydites.

Ancient authors preserve a mystifying silence about the region. But Leo Diaconus (III, 1, p. 35) says that "the Cappadocians were FORMERLY (*i.e.* prior to 950 A.D.) called Troglydites." The Jerusalem Itinerary enables us to throw the date back to a period antedating 333 A.D. Cicero (*de imp. Cn. Pomp. III, 7, "ita regnat, ut se non Ponti neque Cappadociae latebris occultare velit"*) probably gives us a date B.C., though the passage is not proof positive. A comparison with the royal tombs of Phrygia, where the rock formation is the same, including cones, brings us back to remote antiquity. Certain symbols in Hittite hieroglyphs prove that the cones were familiar objects in the mythical period.

7. Dr. Clarence H. Young, of Columbia University, *Practical Hints on Ancient Greek Dressmaking*.

In the absence of any explicit statement of ancient writers as to the form of the several garments worn by Greek men and women during the classical period, the speaker was obliged to experiment, at first with an artist's mannikin, and later with a living model, until he obtained garments of which the appearance, when they were draped upon the model, approximated to that of the costumes worn by ancient statues or illustrated by vase-paintings. The results attained would indicate that it was exceptional for Greek garments to be shaped or fitted to the person; that the chiton, whether short and plain, or long and with a bib, or with both a bib and a kolpos, was simply a rectangular piece of cloth of which the two narrow edges were sewed together; that the himation was likewise simply a rectangular piece of cloth with weights at the four corners; and that the artistic folds of both chiton and himation were due solely, in the case of the former, to the manner in which it was caught across the shoulders and the arms by brooches and was held in at the waist by the girdle, and in the case of the latter to the way in which it was draped about the person.

THURSDAY, DECEMBER 28. 8.15 P.M.

Professor W. W. Goodwin, of Harvard University, presided.

1. Professor Tracy Peck, of Yale University, *Recent Excavations in the Roman Forum*.

[The recent excavations in the Forum were described, and the archaic inscription was discussed. The subject-matter of the paper is to be found under the proper headings in the news department of the JOURNAL.]

2. Professor W. W. Goodwin, of Harvard University, *The Hero Physician*.

In Demosthenes, xix, 249, Atrometus, the father of Aeschines, is said to have kept a school near the shrine of the Hero Physician, and this is generally identified with the place near the shrine of the Hero Καλαμίτης, where the mother of Aeschines is said to have lived a disreputable life (see Demosthenes, xviii, 129). Reiske rightly identified the Hero Physician with the Scythian Toxaris of Lucian's Σκίθης ἡ Προξενος. The plague in the time of the Peloponnesian war was, according to Lucian, stopped by the miraculous aid of Toxaris, who was then worshipped as the "Hero Physician," and a shrine was erected in his honor. (Cf. C.I.A. II, No. 403.)

Lucian describes the tomb of Toxaris, which in his time was in a ruined condition. The monument, which he calls a *στήλη*, was lying flat on the ground, so that only its front was visible. It represented a Scythian *τῇ λαίᾳ μὲν τύξον ἔχων ἐντεταμένον, τῇ δεξιᾷ δὲ βιβλίον, ὡς ἐδόκει*. The bow and the book were still to be seen, but the upper part of the figure with the face was gone. It stood, he says, not far from the Dipylon gate, on the left of the road leading to the Academy. There is now in the National Museum at Athens (Cavvadias *Γλυπτὰ*, 823) a crouching figure of a Scythian, with the head gone, with the left hand clasped, and a hole in it just large enough to hold a bow, and with the right hand touching something under the left arm, which we now see to be a quiver, but which in front (as Lucian or his informant saw it) looks like a tablet or book of the codex form. These definite marks make it highly probable that this figure is the one described by Lucian; and the position of the monument, lying on the ground and probably partly concealed by earth, easily accounts for its being called a *στήλη*. The identification is made more probable by the place in which the figure was found, just outside of the Dipylon on the left of the road to the Academy, as Lucian describes it.

Salinas, in *R. Arch.*, 1864, suggests that this figure may be a later substitute for the one described by Lucian; but he fails to notice the strong proofs of identity which have been mentioned.

If the Hero *Καλαμίτης* is identical with the Hero *Ἰατρός*, of which there is little evidence, we may explain *καλαμίτης* as *arrow-man* (from *κάλαμος*, *arrow*), used like *τοξότης*, *bowman*, to designate a Scythian.

3. Rev. Dr. William Hayes Ward, of New York, *The Goddesses in Primitive Babylonian Art.*

The principal goddesses mentioned in the Babylonian inscriptions of a period anterior to Hammurabi are, according to Jastrow (*Religion of Babylonia and Assyria*), Aa, or Malkat, wife of the Sun-god Shamash; Ishtar, the planet Venus; Belit, wife of Bel; and Bau, wife of Ninib, or Adar. Other goddesses whose names are preserved appear to be variants of these, or confused with them. The attempt of the paper, illustrated with lantern slides, was to classify the figures of the goddesses preserved in primitive Babylonian art, almost wholly on the seal cylinders, and discover the deities represented. Aa is easily recognized. She is the goddess who usually accompanies Shamash, and stands with both hands lifted, generally in a long, flounced dress. Ishtar is usually figured in front

view, seated or standing, with weapons rising from her shoulders, and over one or more lions. Belit accompanies Bel, and stands over the winged monster or dragon Tiamat, like her husband. Bau, "mother of mankind," is to be identified with the seated goddess who holds a child in her lap. She also appears seated without the child, sometimes accompanied by her husband, Ninib. She is often associated with a long-necked bird, a crane or a goose. As this beneficent deity was the giver of fertility, we may also recognize her in the seated goddess who appears adorned with wheat or millet.

4. Professor J. R. Wheeler, of Columbia University, *Notes on the So-called Capuchin Plan of Athens*.

The correctness of Professor Dörpfeld's belief (see *Ath. Mitth.* 20, p. 510) that Guillet's type of plan is older than that which is shown by the plan of the French engineers (see Laborde, *Athènes aux XV^e, XVI^e et XVII^e Siècles*, I, p. 232) is confirmed by a recent examination of the original drawing of the latter plan. His inference from this, however, that remains of the Euneacrunus and of the neighboring odeum still existed in the seventeenth century, was shown, chiefly through the testimony of Spon, to be unwarranted.

5. Professor W. H. Goodyear, of New York, *An Unpublished Survey of the Pisa Cathedral*.

A survey of Italian mediaeval building was carried out in 1895, under the auspices of the Brooklyn Institute. Its general purpose was to determine what irregularities, if any, of the Italian mediaeval buildings were due to forethought, and consequently to aesthetic considerations. Out of five months devoted to this survey, at least five weeks' work was given to the Pisa Cathedral.

The general results of these surveys have been published in the *Architectural Record Quarterly Magazine*, in which seven papers have appeared on this subject, but I have not been able to find space in any of these papers for the survey described this evening. It relates to the main string-course, which on the exterior of the cathedral marks the interior line of the galleries, and the base-line of the second story of the building. As regards this string-course I have made known the obliquities on the north and south walls of the nave, but the still more remarkable facts regarding the entire string-course are so far known only to my surveyor, Mr. John W. McKecknie, and to myself.

These are, briefly, the facts. If an imaginary diagonal level line be drawn from the southeast angle of the choir to the northwest

angle of the façade, the string-course is 4.46 (feet and decimals) lower than an imaginary level line based on the height of the string-course at the northwest angle of the façade. There are no breaks in the masonry of the string-course. The various slopes by which this obliquity is produced are absolutely gradual and regular.

The constructive delicacy and refinements of levelling by which this obliquity was obtained are as remarkable as the prejudice against formalism and parallelism which the obliquity displays.

A single word as to the bearing of this observation on some others which have been previously published. I have already made known that the string-course of the north and south walls of the nave has an obliquity on each side of about 2 feet (1.83 north; 1.94 south), rising on each side from transept to façade, but it has been sometimes suggested that this obliquity was necessitated by a change of plan in the height of the first story of the façade, after the transept and choir had been carried out.

The measurements now made known prove that the obliquities of the string-course must have been contained in the very first conception and original design of the building.

The measurements in detail are, beginning at the northwest angle of the façade, as follows:

String-course of north wall of the nave falls 2.09; pavement falls 0.26. *North Transept, West Wall*: string-course rises 0.44; pavement falls 0.01. *North Transept, North Wall*: string-course falls 1.16; pavement falls 0.87. *North Transept, East Wall, and North Wall of Choir*: string-course falls 0.49; pavement falls 1.05. *East Walls of Choir*: string-course falls 1.16; pavement falls 0.83.

String falls $4.90 - 0.44 = 4.46$; pavement falls 3.02.

Beginning at northwest angle of the façade:

String-course of façade falls 0.56; pavement falls 0.86. String-course of *South Wall* falls 2.15; pavement falls 0.21. *South Transept, West Wall*: string-course rises 0.09; pavement falls 0.31. *South Transept, South Side*: string-course falls 0.63; pavement falls 0.63. *South Transept, East Wall, and South Wall of Choir*: string-course falls 1.21; pavement falls 1.01.

String falls $4.55 - 0.09 = 4.46$; pavement falls 3.02.

The importance of these measurements is that they show, not only a predetermined effort to build an oblique string-course, but they also show that a very careful system of levelling must have been employed in obtaining the obliquity; for to build out of level presupposes careful levelling. In my previous publications many surveys have been published which show predetermined avoidance of

parallels in ground-plans, but no particular refinement of apparatus or proceeding is required in constructing obliquities of ground-plan. Hence the refinement in the result, or in the wish to procure the result, is less obvious to a sceptic, who is generally tempted to discard the evidence, or to evade consideration of the particular cases of evidence which are most convincing. In my publications of irregularities in Italian architecture, I have taken the ground that there are two classes of irregularities, one class due to carelessness or indifference to regularity, the other class due to predetermined aesthetic purpose. I have also held that the former are mainly confined to periods or centres of relative barbarism, and that the latter are especially pronounced in centres of Byzantine influence. In so far as others have differed with me, they have held that all irregularities were due to carelessness or indifference. The controversy has been mainly carried on by publication on my side, and by the verbal expressions of personal opinion on the other.

Obliquities due to careful levelling have been also surveyed in S. Paolo Ripa d' Arno, Pisa, in the Cathedral of Prato and Troja, and in the church called Pieve Nuova, at Santa Maria dei Giudici, at Lucca. The cases mentioned are not the only ones known to me, but the obliquity here described is probably the most remarkable case known to the middle ages or to history.

For the benefit of those who have not followed my publications on this subject, I will add that these obliquities, which are so easily seen in photographs made for the purpose, are detected with the greatest difficulty in the actual buildings. They are, as a matter of fact, really not detected at all. They are discounted into optical effects of varying points of view, but as these points of view are contradictory, or diverse from the actual point of view, they are translated into effects of optical vibration or optical mystification, the quality which Mr. Ruskin has called "life."

6. Professor A. L. Frothingham, Jr., of Princeton University, *Two Monuments of Imperial Rome on the Arch at Beneventum.*

In 114 A.D. a memorial arch was built in honor of Trajan, at Beneventum, decorated with numerous and important reliefs illustrating the events of his reign from the close of the second Dacian war in 106 A.D. to the close of 114 A.D. These reliefs are arranged chronologically beginning in the attic, on the outer face. The four reliefs of the attic are of colossal size and the best art. They are in two pairs: the first pair represents Trajan erecting Dacia into a Roman province as he leaves on his return to Rome; the second

pair must represent the emperor's welcome to Rome on his entering the city for his triumph. The triumphal procession follows on the frieze below. It is in this scene of welcome that the background is formed of some buildings of ancient Rome, the identification of which is here attempted, I believe, for the first time. The whole scene is formed of two reliefs—representing its divine and its human sections. In the divine scene seven gods are welcoming the emperor, headed by the Capitoline trio—Jupiter, Juno, and Minerva. In the human scene, the emperor, with his lictors at his back, is entering from the right, under a portico; near him is Hadrian in military costume, to whom a female allegorical figure stands sponsor. Approaching Trajan through an arch are two senatorial figures with right hands outstretched, and back of them are two other figures. In the middle background is a temple. The architectural details locate the scene exactly, and its identification supplies the key to this location. In Roman triumphs it was in the Field of Mars, before the Triumphal Gate (*Porta Triumphalis*) in front of the Circus Flaminius, that the welcoming scene took place; and the triumphal procession formed under the Portico of Triumph (*Porticus Triumphi*), a mile in length, which led up to this gate. Near it was the “*Ara Martis*.” On our relief the *Porta Triumphalis* is further identified by the victories carved in its spandrels; it projects from the relief so that its outer pilaster is carved on the outside of the frame, showing that the sculptor intended to represent it as at right angles to the portico and to the temple in front of it, on the other side of the street. The temple is identified as the temple of Mars by the emblems carved on the frieze and gable—shields, greaves, swords, helmets, etc. The arcades and vaults of the *Porticus Triumphi* appear at the summit of the relief, carved so as to suggest that the figures stood beneath it. Through the archway appears the heavy wall of another public building. The divine section supports this interpretation of the whole scene as Trajan's welcome to Rome. Jupiter with his right arm outstretched toward the emperor, holding the thunderbolt, is identical with the Jupiter *protector imperatoris* on a coin struck in honor of Trajan's triumph at this time. As the three Capitoline gods represent their temple, which was the goal of the triumph, so the other gods in the background—Hercules, Bacchus, Ceres, and Mercury—represent the principal temples that were to be passed by the procession in its course; they are welcoming the returning victor.

The identification of this arch as the *Porta Triumphalis* is the more important in view of the controversy as to whether it was a

free-standing arch in the Campus Martius or a gate in the walls between the Porta Carmentalis and Flumentana. It is a further argument in favor of the former hypothesis, which was, in any case, the only one tenable.

Thus far no ancient reliefs had borne any representations of the ancient buildings in the Campus Martius; hence our relief is both architecturally and topographically important, as it gives both the style and the relative position of three of its foremost structures. In fact, the ancient reliefs of a good period that represent with any details any historic buildings of ancient Rome can be counted on the fingers of one hand. I will merely add that the lower part of the façade of the temple of Jupiter Capitolinus is represented on another relief of the Beneventum arch, and that the capitals of its columns are here given with considerable detail.

FRIDAY, DECEMBER 29. 9.30 A.M.

Professor E. D. Perry, of Columbia University, President of the New York Society of the Institute, presided.

1. Dr. W. N. Bates, of the University of Pennsylvania, *The Lighting of the so-called Theseum*.

This paper was the result of studies made upon the roof of the Theseum at Athens by the writer. It was shown that the pteroma, or colonnade surrounding the temple, and its front and back porches were covered by frames having openings in them, and that each opening was covered with a lid. Each opening and the lid over it bore a letter. Only a few letters were used to mark these openings and lids, and this was taken to prove that the lids were to be moved only short distances, and so would not become confused with those of other frames. There were over six hundred such openings in the Theseum. The writer argued that these openings were for the admission of light into the temple. The light would come up by reflection from the ground outside and from the stylobate of the temple, pass through the openings, and be reflected from the roof and diffused into the interior.

2. Professor Carleton L. Brownson, of the College of the City of New York, *A Philosopher's Attitude toward Art*.

The purpose of this paper was to gather the archaeological information to be derived from Plato's allusions to art and artists. These were considered under three heads:

I. *References to individual artists.* — Plato mentions by name Daedalus, Epeus, Theodorus, Phidias, Polyclitus, Polygnotus, Aristophan, and Zeuxis. It is noteworthy that Phidias is the only one of this number who receives any word of praise (*Meno* 91 D).

II. *Allusions to matters of art technique.* — (1) The practice of coloring statues is twice referred to (*Rep.* 420 C D, *Leg.* 668 E). (2) The *cire perdue* process of bronze castings is shown to have been familiar in Plato's time (*Rep.* 588 D). (3) The careless treatment by Greek painters of landscape accessories is remarked upon (*Crit.* 107 B). (4) A device employed in mural paintings to accomplish optical illusion is described (*Soph.* 235 E ff.).

III. *General comments and criticisms.* — These suggest various inferences regarding art in Plato's time. (1) It must have been free from the faults which Plato condemns in the poets. For, though he is not friendly to art nor a very intelligent critic, he shows no such hostility toward artists as toward poets. (2) Nevertheless, Plato evidently deprecated the changes in artistic aims and standards since Phidias. (3) The painters of Greece were, in Plato's opinion, worthy of equal rank with the sculptors.

3. Dr. Mortimer Lamson Earle, of Barnard College, *On the Supplementary Signs of the Greek Alphabet.*

The paper deals primarily with the question about the "Eastern" or "Western" origin, arrangement, and equivalence of the non-Phoenician signs ΦΧΥ. Starting with the plain statement of the case at the end of Kirchhoff's *Studien zur Gesch. des gr. Alphabets* the discussions of the question since 1886 are dealt with, viz.: those of Gardner (1886), Szanto (1890), Larfeld (1892), Kalinka (1892), W. Schmid (1893), and Kretschmer (1896). The discovery at Thera by Hiller von Gärtringen, as emphasized by the last of the scholars named, of $\Psi = \xi$ and $\Xi = \zeta$, gives us epigraphical evidence of the borrowing of a sign with changed value by one Greek alphabet from another. Dr. Kretschmer uses this to support his theory of a borrowing of "Western" $\Psi = \chi$ in the East, with the value of ξ . Better might it be used to support the view that the users of such a "Western" alphabet as Mr. Gardner supposes (with $+(X) = \xi$ at the end after V) deliberately sought to graft on the Ionic (perhaps better Milesian) supplementary signs for the aspirates and the double consonants, or more exactly that they sought to perfect their means of alphabetic expression by the addition from an Ionian source of the signs for ph , kh , ps —signs and sounds together, if possible, and in that order. In the case of the second of these the

sign was cancelled, but the sound kept and transferred to the third sign. Another instance of borrowing of signs with changed value was suggested in the case of Delian, Parian, Siphnian, and Thasian $\Omega = o$ or *ov*, not ω , as in its native Ionian. It was suggested that an attempt was made to take over Ionic Ω by the users of an alphabet that either differentiated the *o*-signs, as at Melos ($C = o$, *ov*, $O = \omega$) or, at least, differentiated them in the same direction. The preference for the new sign for the close rather than for the open O led to the reversal of the use of Ionic (Milesian) Ω in relation to O .

4. Dr. George B. Hussey, of the University of Chicago, *Archaeological Notes on Plato*.

This paper contained a discussion of three passages in the text of Plato, which have always been regarded as of difficult or uncertain interpretation. One of these from the *Convivium* 190 D, has usually been translated as "cutting an egg with a hair." It was suggested in the paper that this should be connected with a story recorded by Lucian that some African tribes wore the shells of ostrich eggs as hats. Such was also the case with the Dioscuri, who according to current myth wore eggshell helmets. After this it was proposed to translate the phrase by "cutting an egg for the hair."

Another passage was from the *Republic* 450 B, where the word $\chiρυσοχοήσοντας$ is found. This word is to be understood as a play on a statement of Socrates. It thus means looking for the 'gold' that he had said was to be found in the rulers of his ideal state. The third and last point relates to the comparison of a speech to a living organism ($\zeta\omega\omicron\nu$). This idea is usually credited to Plato from a passage in *Phaedrus* 264 C. The word $\zeta\omega\omicron\nu$ is ambiguous, meaning "image" as well as "animal." The wrong meaning has generally been taken for this passage. Plato merely intended to make one of his numerous comparisons of discourse to painting. A peculiar feature of the error thus corrected is that it came from the Greeks themselves and is not of modern origin. It appears first in Dionysius of Halicarnassus.

5. Professor Andrew Fossum, of St. Olaf College, *The Theatre at Sicyon*.

In the summer of 1898, some digging brought to light the gate in the west parodos, and the parascenia of the first stage-building. The latter consisted each of a pair of Ionic pilasters covered with a fine white stucco. The bases, being still *in situ* at both ends, show

the form of the pilasters and forbid the supposition that wooden columns were used. The height of the proscenium was ascertained from the slant of the ramps. Along the inner edge of the west ramp a narrow strip continued unbroken nearly to the top, showing that the height of the podium was at all periods the same, 3.25 m. above the stylobate. A new plan based on a remeasurement of the theatre was exhibited. The present division of the scene appeared to be a modification adopted after the original plan had been partly abandoned, owing to the difficulty of removing the native rock. That plan was a symmetrical division into five sections of corresponding dimensions. The diameter of the auditorium circle corresponds to the length of the proscenium, measured from centre to centre of the end-pilasters. Although no inscription has been found to determine the age of the theatre, every indication points to the fourth century.

6. Mr. William Rankin, 2d, of Newark, N.J., *The New Connoisseurship*.

Theory: The theory of connoisseurship assumes that internal evidence is conclusive when complete. In the recognition of the necessity for exhaustive collations, connoisseurship may be said to be a modern method of art historical research. Its aims are ultimately analytical, but the point of departure is extensive, as contrasted with that of the artist-critic, which is intensive. We only know one when we compare all, is the foundation principle, and to know a monument in its relation to the whole corpus of monumental material is a help toward knowing the monument for its art absolutes. On this side the trend of connoisseurship is distinctly toward the intensive judgment of art for its own motives and ideals, as measured by canons that arise out of the constitutional character of the art considered.

As illustrations we might take the Phidian influence in Greek sculpture; the historical classification of the later mediaeval un-ascribed paintings; and for a literary analogy, the discovery of the so-called synopticism of the first three gospels.

Method: The method of connoisseurship is comparative, with stylistic analysis as the ultimate appeal. We may call in a jury of artists, but we interpret the art historical law of probabilities to them. The method is exact in its morphological collations, but also conjectural and super-rational often. We observe the emotional, and need for its observation the emotional. The observation of art for art historical purposes thus demands an exceptional attitude in

the observer. It involves the complete understanding of artistic motives. It distrusts the over-balanced literary and philosophical criticism in the interpretation of the visual arts. Modern connoisseurship is distrust of the artists on the one hand, and of the scholars on the other hand; but it knows that the artists need its aid for the concentration upon the historical problems of their more or less over-emotional and over-intensive criticism, and it knows that the scholars need its aid to understand what the artists really mean by their art.

To have to make the theory as well as to do the work is contrary to the fundamental principle above enunciated, which asserts by implication that to judge, one must *not* be a practitioner. In music, literature, and visual arts, we need criticism to correct our errors of perspective.

Fundamental assumptions of theory and method, for the development of which concrete illustration would be necessary, are: First, Art cannot be destroyed, except entirely; second, No two art individualities are alike; third, No vital art individuality ever repeats itself.

The ultimate of connoisseurship is a critical ultimate: the knowledge of intrinsic character and quality, for the attainment of which it is an indispensable and efficient tool.

7. Mr. Edmund von Mach, of Wellesley College, *Hermes Discobolus*?

The marble statue in the Vatican, No. 1615, generally known as "Discus-thrower taking his stand," and sometimes believed to go back to an original by Naucydes, has lately received another interpretation. Georg Habich (*Jb. Arch. I.* 1898, pp. 57-65, and *Int. Arch. Num.* II, 2, 1899) has called it *Hermes Discobolus*. He argues that the statue cannot be an athlete for three reasons:

(1) No discus-thrower can take his stand with the right foot in advance. This statue has the right foot in advance.

(2) Philostratus *Imag.* I, 23 (24) asserts that the left foot must be in advance.

(3) Of all the numerous works of art representing discus-throwers, not one shows an attitude similar to the Vatican marble.

And since the statue does not represent an athlete, but bears strong similarity to the figure of *Hermes* holding a disk on several coins, it is a *Hermes*.

In spite of the opposition of Michaelis (*Jb. Arch. I.* 1898, No. 3), the new view has found some friends.

It is, however, untenable for three reasons:

(1) Experiments have shown that an athlete can well take his stand with the right foot in advance, and thus hurl the disk.

(2) A correct interpretation of Philostratus *Imag.* I, 23 (24) shows that a position with the right foot in advance is prescribed.

(3) A discus-thrower on a hitherto unpublished vase of the Boston Museum of Fine Arts is represented in a position almost identical with that of the Vatican marble.

The statue may then represent an athlete; and when one is bound to choose between the old established interpretation and the new one, which is based solely on the similarity of the figure of Hermes on the coins, one can hesitate. The statue, which suggests so well "the muscular laxity which must precede the tension of the moment represented by Myron," is that of an athlete—a discobolus—not of Hermes Discobolus.

8. Miss Daphne Kalopothakes, of Athens, *Nereids in Modern Greece* (read in abstract by Miss M. H. Buckingham).

The common people of Greece have to-day a thoroughly pagan belief in Nereids, the modern equivalent of the Nymphs, and dread their resentment if encountered in a dust-whirl, or under shady trees at midday, or in a river-bed after sundown, for the intruder is punished with madness. An instance of this belief came under the observation of the writer, in Athens, so lately as February, 1898. Offerings are still occasionally made to the Nereids in the grotto on the Museum Hill, as noted by various travellers of modern times, and they are constantly exorcised by promises of honey and milk. Little children especially must be guarded from them, as from the ancient Moirai. The places they are thought most to haunt are usually those once sacred to the Nymphs. Marriages between Nereids and mortals are said to have taken place in quite recent times, though now out of fashion. The entire conception illustrates the intensely conservative character of the Greek mind, and the comparatively slight influence exerted upon it by Christianity. Perhaps Great-Pan himself is dead, but the poetry of paganism has still a very real existence.

9. Rev. Walter Lowrie, American School in Rome, *The Relation between Classical and Later Textile Design, and the Early Mediaeval Sculpture* (read in abstract by Professor Allan Marquand).

The ornamental sculptures in low relief, which prevailed throughout the Roman Empire from the fifth to the tenth century, form the

subject of a recent study by Mazzanti, entitled *La scultura ornamentale romana nei bassi tempi*, Rome, 1896. He shows that the later mediaeval Roman decorative motives, especially those of the Cosmati, were based upon the design of this earlier period, and holds that in turn it was derived from classic Roman design, as illustrated especially by mosaic pavements. Mazzanti, however, has largely overlooked the classic and oriental textiles of this period. Had he studied these more thoroughly, he would have seen that very many motives, not only those of a geometrical character, but also those based on plant and animal life, were copied by the stone-cutters from the textiles, especially those which oriental commerce brought to their notice.

10. Professor Edward Capps, of the University of Chicago, *The Dating of Some Didascalie Inscriptions* (read in abstract by Professor Fowler). Printed in full, above, pp. 74-91.

The first columns of the didascalie inscription *C.I.A.* II, 972, which contains a part of the comic programmes of the Lenaeon festival of two years, heretofore believed to be 355 and 354, was shown to belong to a considerably later period. The objections to the present dating are (1) the fact that the second column contained the tragic didascalie, proving that the comic record ended in the first column, or *ca.* 343. But the stone was inscribed, in all probability, not until the third century, and the comic contest at the Lenaea was not discontinued before 309. It is, therefore, impossible to understand how this record could have come to an end as early as 343. (2) The poet Simylus is given as victor. But in the year 187 a play of his was reproduced. It seems altogether improbable that a play of the Middle Comedy was revived under the changed conditions of the New Comedy. In all other known instances the revived piece was taken from the New Comedy. (3) The poet Phoenicides was also a contestant. But in a passage quoted by Hesychius he is shown to have been active at least sixty-seven years later than the date assigned to our inscription. A date early in the third century would obviate all of these objections. The archon Diotimus may be the magistrate of 286-285, instead of 254-253. This is proved by the names of the actors mentioned in the inscription, who may be identified with comic actors whose names are found on fragments of the lists of victors, *C.I.A.* II, 977, *uv* and *f'w*, on choragic inscriptions from Delos, and on the soteric inscriptions from Delphi, all of a date which permits of the date proposed for the record under consideration. A number of new

facts concerning the contests at the Dionysia and the Lenaea and concerning the poets mentioned in the inscription now come to light. By a similar method new dates and restorations are suggested for three of the fragments of the great didascalie inscription *C.I.A.* II, 975.

11. Miss Susan Braley Franklin, of Bryn Mawr College, *Reliefs on κιονίσκοι*.

The paper was based upon a study of the κιονίσκοι in Athens upon which a relief is carved. The following typical classes were presented:

A. The relief upon the monument is often indicative of the occupation or social position of the person on whose grave it is placed.

(1) *The Key*.—This class of reliefs was illustrated by a hitherto unpublished κιονίσκος in the National Museum at Athens. The stone was discussed from the epigraphical as well as the symbolical point of view. The previous discussion as to the significance of this relief on such monuments was outlined, and the key was shown to be indicative of the office of priestess, and not of the housewife's duty. Illustrations of a similar use of the temple-key on Greek and Italian vases and a Roman wall-painting were cited.

(2) *The λουτροφόρος*.—The vase in which Professor Wolters has recognized the λουτροφόρος, placed on the tomb of unmarried persons, was found on thirty-four κιονίσκοι. An instance of the same symbol on the monument of a married woman was discussed.

(3) The pruning-hook, hammer, and plough indicate the vine-dresser, carpenter, and farmer.

B. Upon several κιονίσκοι two hands in the attitude of prayer are carved. This symbol is not necessarily to be interpreted as invoking a curse on the despoiler of the grave.

The following papers were withdrawn or read only by title, owing to lack of time:

Dr. Cyrus Adler, of the U. S. National Museum, Washington, D.C., *Oriental Archaeology in the XIXth Century*; Mr. Paul Bauer, of Cincinnati, *Artemis as a Goddess of Healing*; Professor Mitchell Carroll, of the Columbian University, *Aristotle's Theory of Sculpture*; Professor W. S. Ebersole, of Cornell College, *Metopes of the West End of the Parthenon*; Miss Alice C. Fletcher, of Washington, D.C., *The Significance of*

the Garment; Professor Harold N. Fowler, of Western Reserve University, *Pliny, Pausanias, and the Hermes of Praxiteles*; Professor A. L. Frothingham, Jr., of Princeton University, *Side-lights on Ancient Etruria*; Professor W. G. Hale, of the University of Chicago, *The First Ownership of the Oxford Ms. of Catullus known as O*; Professor Paul Haupt, of Johns Hopkins University, *Israelitish Chariots*; Mr. B. H. Hill, of Columbia University, *Note on the Καλός-name Hippodamas*; Professor J. H. Huddilston, of the University of Maine, *Cicero as an Art Connoisseur*; Mr. W. W. Hyde, of Northampton, Mass., *Calimachus*; Professor Walter Miller, of Leland Stanford, Jr., University, *Notes on Greek Vases in the Stanford Museum*; Professor Rufus B. Richardson, of the American School at Athens, *The Mustache at Sparta and in Archaic Greek Art*; Professor Myron R. Sanford, of Middlebury College, *The Roman Tunica and Toga*; Professor T. D. Seymour, of Yale University, *Notes on Homeric War*; Professor J. R. Wheeler, of Columbia University, *A Bronze Figure of Heracles*; Professor John Williams White, of Harvard University, *On the Weight, Size, and Throw of the Discus*; Professor John H. Wright, of Harvard University, *The Composition of Apelles's Calumny*.

Many of the papers read were illustrated with stereopticon slides.

NOTICE

A General Meeting of the Archaeological Institute of America in connexion with other learned societies will be held in Philadelphia in the Christmas holidays of 1900. Dr. WILLIAM N. BATES, of the University of Pennsylvania, and Dr. JOSEPH CLARK HOPPIN, of Bryn Mawr College, represent the Institute on the Committee of Arrangements.

Members of the Institute are invited to present papers at this General Meeting, and to send the title of each paper to the Secretary of the Institute, Dr. CLARENCE H. YOUNG, 312, East 88th Street, New York City.



CYLIX BY DURIS, IN THE BOSTON MUSEUM OF FINE ARTS.

A SIGNED CYLIX BY DURIS, IN BOSTON

[PLATE I]

THE list given by Hartwig in 1893 (*Griechische Meisterschalen*, pp. 685 f.) of the vases, complete or fragmentary, signed by Duris as decorator (*Δδρις ἔγραψε*), includes twenty-six numbers, or, if we count the small bit from the Athenian Acropolis and the three cylices which have disappeared and of which no drawings exist, thirty numbers. Of these thirty, twenty-seven are cylices. In 1898 the Boston Museum of Fine Arts acquired a twenty-eighth cylix, belonging to Duris's earlier period (*Twenty-Third Annual Report*, pp. 65 f.). It is my privilege to make known a twenty-ninth cylix, which, if not ranking among the best works from that prolific master's hand, is by no means among the poorest. It belongs to his later period, *i.e.* about 480 B.C.

This vase was for many years the property of Thomas Wilson, LL.D., Curator of the Division of Prehistoric Archaeology in the United States National Museum, Washington, D.C. It was found in 1886, between April 4 and 11, in the necropolis on the northwest slope of the rock on which Orvieto is situated. The discovery was made in the course of excavations conducted by Signor Riccardo Mancini, a well-known explorer of Orvieto, Dr. Wilson being himself present and assisting in the work. The tombs uncovered at this time had been disturbed and destroyed, and the decorated pottery found was all in fragments.¹ The vase of Duris was put together in Washington, but was not otherwise tampered with. From 1887 to 1899 it was

¹ *Notizie degli Scavi*, 1886, p. 120.

exposed in a glass case in the Smithsonian Building, but attracted no attention from experts in Attic vase painting. It has now become the property of the Museum of Fine Arts in Boston.

The form is the usual cylix form of the period. The height is $4\frac{3}{4}$ in., the diameter $12\frac{1}{4}$ in. As may be seen in PLATE I, reproduced from a photograph, the vase was broken into five pieces at an early stage of its existence, perhaps in transit from Attica to Etruria, and was repaired, presumably by means of the usual bronze clamps. There are twenty-one pairs of holes drilled to receive these clamps. In one respect the method of repair differs from the ordinary one, viz. in the fact that channels were scratched between the two holes of each pair on both the inside and the outside, so that the clamps should not project above the general surface of the vase.¹ Along the lines of these channels the clay is thus reduced to great thinness, and this must have seriously impaired the strength of the mended vase. The smallest of the five broken pieces was either lost or too much shattered for use, and was replaced by a fragment from another cylix. This is the triangular bit just above the right-hand handle, as seen in PLATE I. The existence of a design on the outside of the inserted bit makes certain its alien origin, while the drilled holes and scratched channels, matching those of the adjacent parts, guarantee the join.

Subsequently to the repair just described the vase was again broken, probably by being thrown into the fire in connection with the rites of burial. This inference is based upon the fact that certain pieces have had their red clay turned to gray in a way believed to be due to fire, while other pieces are unaffected. How many still later breakages there may have been, it is impossible to tell. A few small pieces are missing altogether, but, luckily, the designs are all but complete, and, though the vase is streaked with adherent lime carbonate, the

¹ A somewhat similar, but not identical, method was pursued in repairing the cylix of Brygos in the Cabinet des Médailles (Hartwig, *Meisterschalen*, pl. xxxii).

surface is otherwise in good condition, and the drawing but slightly damaged.¹

PLATE I is reproduced from a photograph; Figs. 1–3 from tracings. The latter figures are faithful in most respects, but



FIGURE 1.—CYLIX BY DURIS, IN THE BOSTON MUSEUM OF FINE ARTS: INTERIOR.

the hair is in all cases falsely rendered; it should be uniformly black. Further, the eye of the Maenad at the left of Fig. 3 is too wide open. Finally, the *sigma* of ἔγραψε

¹ Since this article was written, the vase has been taken to pieces, carefully cleaned, and put together again. Its appearance has thus been greatly improved. In the reconstruction the alien triangular fragment has not been reinserted.

in Fig. 1 should be three-barred, and that of Ἴπποδάμης, in Fig. 2, four-barred.

The following technical details deserve to be noted : in the interior, purple is used for the waving stem or band connecting the ivy leaves on Dionysus's head, for the tassel of the cushion, and for the letters of the inscription. Diluted glaze is used for the cross-hatching on the cushion, for the ornament on the ogee moulding of the altar, and for the blood splashes on the altar. The hair of Dionysus is rendered in solid black, with four concentric relief lines laid over this on the crobylus, and a succession of scallops in front. The crown of the head is bounded by two parallel oval relief lines. The beard, also of solid black, is edged with short relief lines set side by side. The eye is closed at the inner angle, and the iris and pupil are indicated by a dotted circle. On the exterior, the preliminary sketch, made with a blunt point in the still soft clay, is distinctly traceable in places. Purple is used for head bands and letters. The minor markings upon the abdomens, arms, and legs of the nude Sileni, and the hair upon their bodies, are, as usual, in thinned glaze. The legs and the inside of the fawn-skin are painted with the same. The hair of the heads is everywhere black, and has similar relief lines to those of the interior. The crowns of the heads are also bounded in the same way as there, and the beards of the Sileni are similarly edged. All the eyes are of the dotted-circle type. In some cases, the contours are slightly open at the inner angle.

As is almost invariably the case with Duris's signed cylices (though not with his later unsigned ones), the designs on the inside and the outside of the vase are closely connected with each other. In the interior (PLATE I, Fig. 1) Dionysus stands before an altar, holding out a cantharus, as if about to pour a libation. He is dressed in a linen chiton reaching to his feet and a himation. His long hair is gathered at the neck into a crobylus, and there is a wreath of ivy leaves about his head. An interesting parallel to this figure is afforded by an amphora in the style of Duris in the British Museum (*Catalogue of*

Vases, vol. iii, E. 330, pl. xiii). It is noteworthy that the altar is tilted in relation to the god, according to a practice much in favor with Duris (*e.g.* Murray, *Designs from Greek Vases*, figs. 33, 36), but not confined to him (*ib.* fig. 44). The folding-stool (*ὀκλαδίας*) behind him, on the other hand, appears to stand on the same plane with him. In the field behind him is the signature: ΔΟΡΙΣΕΑΡΑΘΣΕΝ. The whole design is enclosed by a pattern of the form usual with Duris in his later period. This design consists of single meander squares of alternating direction, separated by what the British Museum Catalogue calls "red-cross squares," the whole bordered within and without by concentric black circles. The painter has been successful in making both ends of his pattern meet without disarrangement, whereas in some other cases he has been obliged to dislocate his pattern, either bringing two meander squares together (*e.g.* Murray, *Designs*, fig. 32), or giving to two neighboring meander squares the same direction (*ib.* fig. 33).

On the exterior (Figs. 2, 3) we find one of the stock subjects of Attic pottery — a revel or dance of Sileni and Maenads. The design is divided into two parts by symmetrical quadruple palmette ornaments beneath and at the sides of the handles. These ornaments are of the type usual with Duris in his later period (Winter, *Jahrbuch des archäologischen Instituts*, 1892, p. 110, fig. 13). It is a favorite scheme with Duris to draw five figures on each half of a cylix, and that scheme is followed here, there being three Maenads and two Sileni on each side. Each of the six Maenads wears a voluminous linen chiton, the sleeves of which she pulls down so as completely to cover her hands. The fashion is a common one, especially with Maenads (Hartwig, *Meisterschalen*, pp. 312 f.; Kalkmann, *Jahrbuch des archäologischen Instituts*, 1896, p. 20, fig. 1). Five of them wear over the chiton a mantle, fastened over the left shoulder and passing under the right arm, while the sixth has in place of this a small skin, probably intended for a panther's skin. Their long hair is held in place with diadems and fillets. Of the Sileni one wears a well-characterized fawn's



FIGURE 2.—CYLIX BY DURIS, IN THE BOSTON MUSEUM
OF FINE ARTS: EXTERIOR.

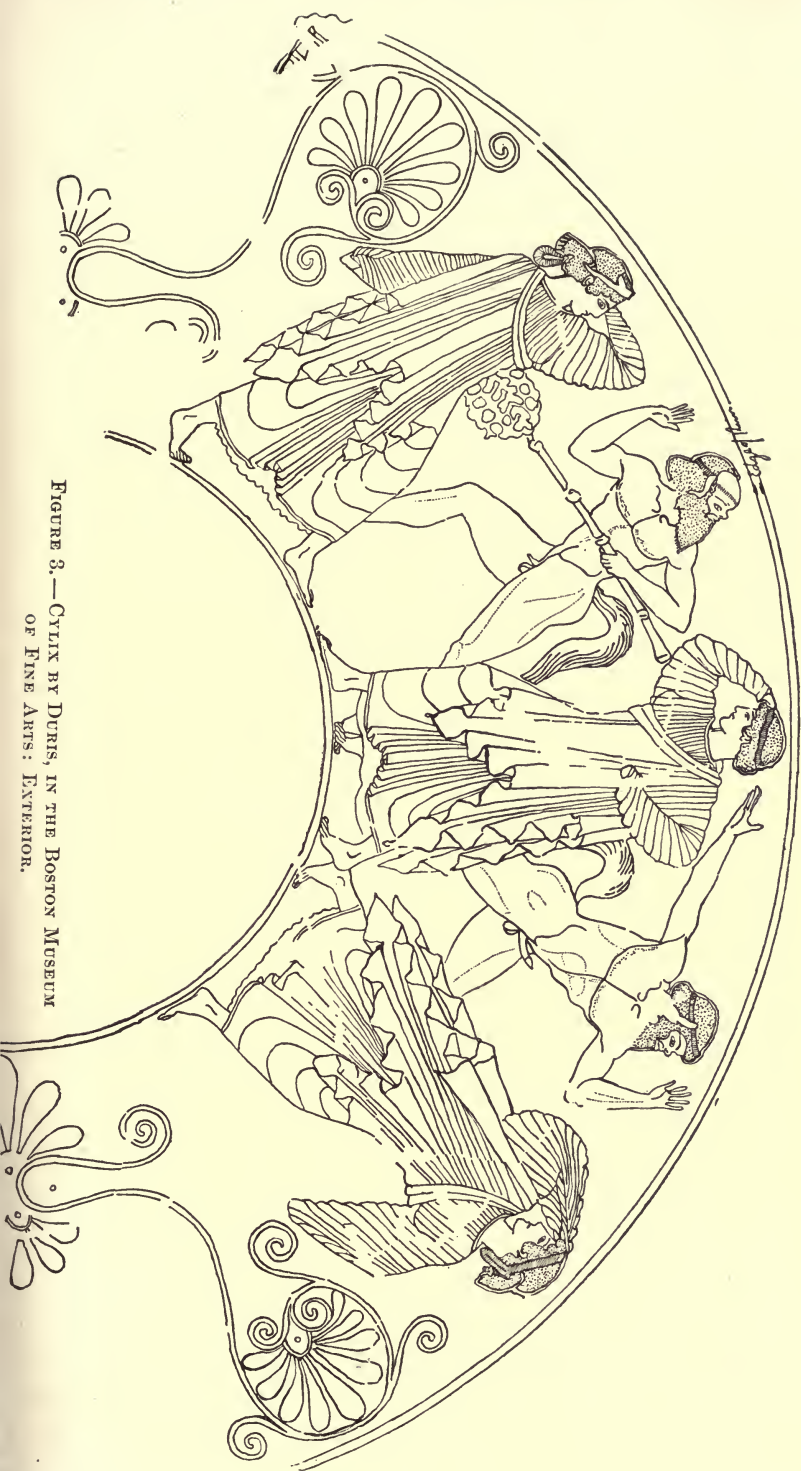


FIGURE 3.—KYLIX BY DURIS, IN THE BOSTON MUSEUM
OF FINE ARTS: EXTERIOR.

skin, and one carries a thyrsus. They, too, or at least the three whose heads are in profile, have fillets about their hair.

On one side is the inscription ΗΙΠΠΟΔΑΜΑΣ ΚΑΛΟΣ (Ἴπποδάμας καλός). This is the ninth cylix on which this name occurs. Of the eight cylices previously known, two are signed by Duris and three are ascribed to him, while two are signed by Hieron and one is ascribed to him. Duris here spells the name with a double *pi*, as on the unsigned cylix formerly in the Van Branteghem collection and now the property of Martin A. Ryerson, Esq., of Chicago (Hartwig, *Meisterschalen*, pl. lxvii, 2 = Klein, *Griechische Vasen mit Lieblingsinschriften*, p. 104, fig. 27), and, according to Hartwig (*Meisterschalen*, p. 602, note 1), on the signed cylix in the Louvre. In the other three instances he writes only a single *pi*.

The artistic shortcomings of Duris have been strongly emphasized by Hartwig, and the present vase illustrates them anew. The figure of Dionysus in the interior has the least possible subject-interest, and it poorly fills the circular space. The thiasus on the exterior is better, but it lacks the variety and reckless impetuosity, as well as the facial expressiveness, which Euphronius and Brygos knew how to give to such subjects. Even the anonymous painter of the British Museum cylix, E. 75 (Hartwig, pl. xliii), imparted to his treatment of the theme far more of Bacchic frenzy. The recurrence of similar gestures in Duris's design is characteristic. So, too, is the uniformity in the rendering of the Maenads' chitons, though the particular rendering employed—a single sheaf of symmetrical folds in the middle, with free, curved lines over the legs—is one to which the other work of Duris and that of his contemporaries, so far as accessible to one, does not afford a close parallel. All this, however, amounts only to saying that the present vase is not a production of the very highest order. When we have made our reservations, we shall still find much to admire, especially in that half of the exterior which bears the inscription (Fig. 2). If Duris has not here outdone himself, as on the famous psykter in the

British Museum, E. 768, he has at least drawn, in the two Sileni, figures of unusual spirit and excellence. That one in particular whose face is shown in front view is among the best things that Duris ever did, even the impossible way in which the sole of the right foot is shown not appearing so much a fault as an interesting audacity.

F. B. TARBELL.

TWO WINDOWS IN THE CATHEDRAL OF FLORENCE

DURING a hurried visit to Florence in 1896 my attention was attracted to a series of very interesting windows in the Cathedral, which, so far as I can learn, have never been reproduced. Having obtained the necessary permit, I photographed with quite inadequate facilities two of the windows in the drum of the cupola, at the same time making careful notes of their details and coloring. Unfortunately I had no time to observe carefully the other windows or to take other photographs. It is not a little strange that neither of these windows has been reproduced before, as one of them is unique in being the only window designed by Donatello, while the other illustrates a little known phase of the art of Lorenzo Ghiberti, or, perhaps, of Paolo Uccello.

The octagonal drum of the cupola is lighted by eight circular windows, each some 4.50 m. in diameter. Seven of them still contain painted glass. There seems to have been no general scheme in the arrangement of these windows, although when we consider them chronologically the earliest will be seen to refer to the Virgin; the next three refer to the closing scenes of the Life of Christ, and the last four to the early history of the Life of Christ. The windows were put in place in the following order:

1. *The Coronation of the Virgin.* Designed by Donatello, April 14, 1434. Executed by Bernardo (di Francesco), assisted by Paolo Uccello, October 4, 1434.
2. *The Resurrection.* Designer not recorded. Executed by Bernardo di Francesco, January 15, 1443.
3. *The Agony in the Garden.* Design claimed by Ghiberti. Executed by Bernardo di Francesco, February 28, 1443.

4. *The Ascension*. Design claimed by Ghiberti. Executed by Bernardo di Francesco, January 15, 1444.

5. *The Annunciation*. Designed by Paolo Uccello, February 18, 1443. Executed by Bernardo di Francesco, December 30, 1444–January 19, 1445. This window no longer exists.

6. *The Nativity*. Designed by Paolo Uccello, November 5, 1443. Executed by Angelo di Lippo, June 30, 1444 (?).

7. *The Adoration of the Magi*. Designer not recorded. Possibly by Paolo Uccello, January 28, 1445. Executed possibly by Angelo di Lippo, March 6, 1445.

8. *The Presentation in the Temple*. Designed by Ghiberti, December 7, 1443. Executed by Bernardo di Francesco, June 18, 1445.¹

Let us now consider in detail the two windows of which we publish reproductions.

1. **The Coronation Window.** — This window occupies the position of honor, but is unfortunately so covered with the dust of ages that a photographic reproduction leaves much of its design undecipherable. This makes it the more necessary that we should study it by the aid of strong glasses from the gallery of the dome. It then appears that this dusky framework is enlivened with a series of winged cherub heads. They are not naturalistically, but conventionally colored—like the cherub heads in Giottesque paintings. Each has an ornamented golden nimbus, the white edges of which define the position of the cherub heads in our illustration. The lowest cherub to our left is red, the next above is greenish gray, the third is red, the fourth is light brown, the fifth red, and the sixth blue. A rigid symmetry would call for two more, but the design of the central medallion overlaps the frame. Regardless of the distance from which the window would be seen, the cherub wings and the hair of their heads show very carefully painted detail.

When we turn from the frame to the central medallion, we are impressed with the great simplicity of its composition.

¹ For the dates here given see the Appendix to Dr. Hans Semper's 'Die farbigten Glasscheiben im Dom von Florenz,' published in the *Mitth. d. K. K. Central-Commission*, 1872, pp. 19–36. The dates are those of partial payments, and are taken from the Cathedral archives entitled *Libro di Deliberatione e Stantiamenti degli Operai di Santa Maria del Fiore*, etc.

There is no canopied throne to distract our attention, no landscape background. There is nothing but the blue sky to act as a setting for the two figures, who are clad in great simplicity. The words of the Psalmist (Ps. xlv. 9), "Astitit regina a dextris tuis in vestitu deaurato, circumdata varietate," had become



FIGURE 1. — CORONATION OF THE VIRGIN : DONATELLO.

embodied in the Catholic ritual, and are here accepted almost literally. The Virgin, leaning forward with folded hands, is clad in a golden garment which is ornamented only by a narrow embroidered border. The end of the throne or bench on which she is seated has pearl and cyma and dentil mouldings, showing a timid preference for Renaissance details. Her footstool is ornamented with a simple reticulated pattern. The Christ,

seated on the same throne, places upon her head a crown of gold, set with rubies and sapphires. The Christ wears a royal red mantel, lined with white, over a green robe with violet sleeves. The mantel has an ornamented golden border. His nimbus is divided into red, golden, and violet sections, elaborately decorated, as if the window were to be set not in the drum of a lofty dome, but near enough to be appreciated by the worshipful spectator.

The authorship of this window has never been called in question. There seems to have been a competition in which Ghiberti and Donatello were asked to furnish designs to a jury composed of theologians and painters and makers of stained glass windows. The design of Donatello was accepted April 14, 1434, and is thus recorded in the Cathedral archives (*Libro di Deliberatione e Stantiamenti degli Operai di Sta. Maria del Fiore*): "Prefati operarii congregati in loco eorum residentie prefactis dicte opere utili pagendis servatis servandis attendentes ad duo designa facta ad instantiam opere super imo quorum fieri debet oculus vitrei storie et actus incoronationis Domini nostri Jesu Christi facti eius et matris virginis Marie videlicet unam per Donatum Nicolai et Laurentium Bartoli et ad quedam consilia habita a quam pluribus intelligentibus et magistris v. sacre theologie et a pluribus pictoribus et magistris fenestrarum et oculorum vitrei de declarando et consulendo quale victorum duorum designorum est pulchrius et honorabilius pro ecclesia et magnificentius tante ecclesie et intellecto per dicta consilia designum factum per dictum Donatum esse melius honorabilius et magnificentius designo facto per dictum Laurentium Bartoli deliberaverunt quod dictum designum factum per dictum Donatum Nicolai oculi vitrei fiendi super oculo existenti supra cappellam S. Zenobii et qui est coram corpore ecclesie veteris fiat et fieri debeat et non secundum designum dicti Laurentii et non possit fieri dictus oculus cum aliquo alio designo nec solvent dumtaxat cum designo dicti Donati Nicolai."¹

¹ Published by H. Semper in Eitelberger von Edelberg's *Quellenschriften für Kunstgeschichte*, IX, pp. 282 f.

This record establishes not only that Donatello made a design of the "Coronation of the Virgin" for a circular window to be located above the chapel of S. Zenobius, but that the design was accepted, judged to be finer than the design furnished by Lorenzo Ghiberti, and that a decision was reached that the window should be made in accordance with this design.

The window would seem to have been begun in the same year, as we may infer from a document published also by H. Semper in Eitelberger von Edelberg's *Quellenschriften für Kunstgeschichte*, IX, p. 283, No. 76, copied from the *Opera del Duomo; Liber Quadron, Carta xxxi*, under the date October 4, 1434. It reads as follows: "Donato di Niccolò maestro d' intaglio de avere a di 4 d' ottobre fior. 18 larghi per uno disegno d' un occhio alla Capella di S. Zenobio e quali sono per lui e per Bernardo (di Francesco) e per Pagholo Uccello." This document shows that a certain Bernardo and Paolo Uccello were associated with Donatello in the execution of this window: Bernardo being probably Bernardo di Francesco, elsewhere styled a *magister vetrorum*, and Paolo Uccello, elsewhere called *pictor*, employed to paint either upon the cartoon or upon the glass such details as might be called for by the designer.¹

The knowledge that this window was by Donatello was retained by the fifteenth-century Anonimo del Codice Magliabechiano.²

In 1550, Vasari, in his *Vita di Donato*, describes this circular window of Donatello's as having "maggior forza in se, che gli altri da diversi maestri disegnati," which statement, in the edition of 1568, he modifies to "il quale disegno è tanto migliore di quelli, che sono negl' altri occhi, quanto manifestamenti si

¹ Milanese, *Vasari*, II, p. 402, note 2, declares that this window was executed by Domenico di Piero di Pisa, assisted by Angelo di Lippo. Cavallucci, *Santa Maria del Fiore*, p. 148, makes a similar statement. The entries of the Cathedral archives, published by Semper, *Mitth. d. K. K. Central-Comm.*, 1872, p. 34, indicate that the circular windows made by Domenico and Angelo at this period were *oculi albi*, or of uncolored glass.

² Carl Frey, *Sammlung ausgewählter Biographien Vasari's*: III, *Vita di Lorenzo Ghiberti*, p. 64. Berlin, 1886.

vede." The preference of the judges for Donatello's design was thus accepted by Vasari, and in recent times by H. Semper, who in his *Donatello's Leben und Werke*, Innsbruck, 1887, pp. 63-64, declares: "In der That ist Donatello's Glasgemälde das schönste im Tambour und übertrifft selbst die im Jahre 1443 nach Paolo Uccello's Cartons gemalten Scheiben. Auf Donatello's Gemälden zeichnen sich die Figuren bei etwas tiefen, mehr malerisch als in strengen Glasmalerstil gehaltenen Farbentönen, durch einfache grosse Umrisse, durch Ernst und Innigkeit der Bewegung und des Ausdruckes, sowie durch feine Detailbelebung aus." With the general spirit of this estimate we cordially concur.

2. **The Resurrection Window.** — Adjoining the Coronation window is a window representing the Resurrection of Christ. Of all the windows in the drum it is the most brilliant in color and effective in design. The Christ is rising, as if uplifted by some supernatural force, from an open sarcophagus from which the cover has just been removed. On either side is an armed soldier sleeping. The background consists of rocks, symbolic rather than naturalistic in treatment, a single fruit tree of rather rigid type, and a broad, blue sky.

The Christ is clad in white raiment which is decorated with golden cinquefoils and a golden border. The drapery is thrown over the left shoulder so as to display the pierced right side and the wounded hand is raised in the act of blessing. In the left hand he holds a white banner on which is a red cross. The white portions of the banner are ornamented with a fine network of Greek crosses, and the red cross with rows of quatrefoils.

Streams of golden glory emanate from the body of the Christ, and back of his head is a red-crossed golden nimbus. The sarcophagus is decorated with green panels enclosed by a red framework, and its cover has a central red panel. The two soldiers are clad in steel-colored, golden-fringed armor. The one to our left has a blue sword and wears a turban striped red and green. The other rests his right arm upon a shield which

is green with violet stripes. His turban is yellow and blue. The rocky background is deep purple red in color, while the tree has pointed green leaves and large reddish fruit. It may also be noticed that the blue glass in the background is carefully arranged in concentric bands.



FIGURE 2.—THE RESURRECTION: Ghiberti.

If we ask who was the glass-maker who executed this window, the question can be answered from documentary sources. The record is published by Rumohr, *Italienische Forschungen*, II, p. 356. It is copied from the *Archivio dell' Opera del Duomo di Firenze*, Scaffale IV, No. XXV, Libro: *Alloghagione del Opera di Sca. Maria del Fiore al Tempo di ser Nicolajo di . . . di*

Nicholajo di Diedi. Cominciato Anno M.CCCCXXXVIII, fol. 36, die secunda Maji (1443), and reads as follows: "— locha-verunt — Bernardo Francisci, qui facit fenestras de vetro — Duos oculos de vetro in tribuna magna — vid. Unum ex latere destro vid. versus tribunam corporis Christi in quo debet esse resuressio dn̄i. n̄ri. Jhs. XPI. secundum designum sibi dandum et debet fieri justa illud incoronatio. Alium vero oculum . . . alia tribuna et justa dem oculum in quo debet esse quum dominus no. oravit in orto et cum designo sibi dando. quos debet bene laborare arbitrio dnorum operariorum et boni magistri et debet abere pro suo magisterio vitreo tagliatur, et aliis librar. undecim et soldi decem. picc. Operarii predicti promictunt solvere designum, pictorum et ferramenta, facere pontes et alia occurrentia."

This record makes it clear that the execution of the Resurrection window was entrusted to Bernardo di Francesco. The entry seems to have been a tardy one, for we find that some four months earlier Bernardo di Francesco was paid on account 100 l. for this window. The document is published by Dr. Hans Semper, *Mitth. d. K. K. Central-Comm.*, 1872, p. 33, and reads as follows: "Die 15 m. Jan. 1442 (43). Bernardo Francisci qui facit fenestras de vetro l. 100 p. parte solutionis unius oculi de tribuna magna in quo est resurrectio domini."

The records thus establish the date of the window and give us the name of the maker, but furnish no direct information concerning the artist who furnished the design. We may observe, however, that the Resurrection window was assigned to Bernardo on the very same day as was the window representing the Agony in the Garden. Now if we turn to Ghiberti's Commentaries, we find this statement concerning the windows he designed for the Cathedral: "Disegnai nella faccia di Sancta Maria del Fiore nell' occhio di mezo l' assumptione di Nostra Donna et disegnai gl' altri, (che) sono dallate. Disegnai in detta chiesa molte finestre di uetro. Nella tribuna sono tre occhi, disegnati di mia mano: Nell' uno e (è) come Christo

(se) ne ua in cielo; nell' altro, quando adora nell' orto; i terzo, quando e (è) portato nel tempio." ¹

Ghiberti here lays claim to only three windows in the drum of the cupola; viz. the Ascension, the Agony in the Garden, and the Presentation in the Temple. It is true that the anonymous writer of the manuscript in the Magliabecchiana and Vasari make more sweeping claims for Ghiberti, but do not specifically mention this window. Can it be, therefore, that the Resurrection window was designed by some other hand?

Another author for this window has indeed been suggested, Paolo Uccello. Let us see what evidence there is in his favor. It has already been noted that in 1434 he received some payment from Donatello, probably for coloring the design or the window representing the Coronation of the Virgin. The records published by Semper also show that on the 18th of February, 1443, he was paid for a design for a circular window representing the Annunciation, and on November 5, 1443, for another representing the Nativity, and on January 28, 1445, he received a final payment for painting two circular windows. The latter document reads as follows: "Die 28. Jan. 1444 (45). Paolo Doni Uccello l. 16, s. 10 sunt pro residuo . . . pro suo labore picture duorum oculorum." This document cannot well refer to the Resurrection window, as this window had already been in place for more than two years.

More definite, certainly, are the statements of Milanese ² and Cavallucci, ³ both of whom attribute the Resurrection window to Paolo Uccello, but as their affirmations concerning these cathedral windows are not consistent with themselves, nor with

¹ Carl Frey, *Sammlung ausgewählter Biographien Vasari's*: III, *Vita di Lorenzo Ghiberti*, p. 54. Berlin, 1886.

For Ghiberti's Commentaries see also Cicognara, *Storia della Scultura*, IV, pp. 208-225; Rumohr, *Kunstblatt*, 1821, No. 1; *Italienische Forschungen*, I, pp. 289-293; Schorn-Vasari, *Leben der Maler*, II, Abth. I, p. 129; Le Monnier-Vasari, I, pp. xi-xxxvii; Perkins, *Ghiberti et son École*, pp. 113-136.

² Milanese-Vasari, II, p. 211, note 2.

³ Cavallucci, *Sancta Maria del Fiore e la sua Facciata*, pp. 146-149.

each other, nor with the archives published by Semper, we cannot safely rely upon them.

The documentary evidence may therefore be estimated as follows: Nowhere is it directly affirmed that Ghiberti was the designer of the Resurrection window, nor on the other hand do we know of a document to prove that it was designed by Paolo Uccello. But the dates on which these designs were executed make it probable that during the year 1443 Ghiberti designed all the windows representing the closing scenes of the Life of Christ, while Paolo Uccello designed those concerning the Birth of Christ.

The documentary evidence, at least in the condition in which it is published, being indeterminate, let us consider the window from the point of view of style. We cannot fail to be struck at once with the beautiful and decorative border which serves as a frame for the picture. We recall the beautiful borders which enframe the reliefs in Ghiberti's first and second gates for the Baptistery, and if we look for specific resemblances, they are not wanting. We find the use of the vine-scroll in his earliest relief of the Sacrifice of Isaac (1402); we see it again in the first Baptistery gate decorating the platform on which Pilate is seated (finished 1424), and it appears again between niches and circles on the border of the second Baptistery gate (1424-1452). But more striking than the border is the figure of Christ, with the S-shaped curve of the body and the drapery swinging in what may almost be called the Ghiberti curve. The use of such curves becomes more frequent in Ghiberti's second gates, so that, by 1442, the year when six of these reliefs were being moulded, Ghiberti might be expected to draw just such a figure of Christ as this. We might go farther and point out resemblances between these soldiers and others which Ghiberti represented about this time, and similarly for the rocky background and the fruit tree. But enough has been indicated to show that Ghiberti might have designed this window without changing his general spirit and style.

The case for Uccello would be difficult to substantiate, at least

from a study of his fresco paintings. His chief interest in painting was not decoration, but a scientific, experimental enthusiasm for problems of perspective. The few works known to us from the hand of this artist lack entirely the decorative quality of this design. They present compositions less symmetrical and more complicated, figures which are not characterized by graceful curves, and which are frequently colored without reference to appropriateness or reality. His style is admirably summarized by Bernhard Berenson in *The Florentine Painters of the Renaissance*, pp. 33-34, as follows: "His real passion was perspective, and painting was to him a mere occasion for solving some problem in this science, and displaying his mastery over difficulties. Accordingly he composed pictures in which he contrived to get as many lines as possible leading the eye inward. Prostrate horses, dead or dying cavaliers, broken lances, ploughed fields, Noah's Arks, were used by him with scarcely an attempt at disguise, to serve his scheme of mathematically converging lines. In his zeal he forgot local color — he loved to paint his horses green or pink — forgot action, forgot composition, and, it need scarcely be added, significance. Thus in his battle pieces, instead of adequate action of any sort, we get the feeling of witnessing a show of stuffed figures whose mechanical movements have been suddenly arrested by some clog in their wires; in his fresco of 'The Deluge' he has so covered his space with demonstrations of his cleverness in perspective and foreshortening that, far from bringing home to us the terrors of a cataclysm, he at the utmost suggests the bursting of a mill-dam; and in the neighboring fresco of the 'Sacrifice of Noah,' just as some capitally constructed figures are about to enable us to realize the scene, all possibility of artistic pleasure is destroyed by our seeing an object in the air which, after some difficulty, we decipher as a human being plunging downward from the clouds. Instead of making this figure, which by the way is meant to represent God the Father, plunge toward us, Uccello deliberately preferred to make it dash inward, away from us,

thereby displaying his great skill in both perspective and foreshortening, but at the same time writing himself down as the founder of two families of painters which have flourished ever since, the artists for dexterity's sake — mental or manual, it scarcely matters — and the naturalists."

Is it likely, we ask, that such a one-sided specialist as Uccello should have produced a design like this, which presents a striking contrast to his other work? It may be unlikely, yet, were we acquainted with his work in painted glass, our notions of his style might be seriously modified. As a boy of ten, he was in Ghiberti's workshop, and in the fulness of manhood he gave Ghiberti assistance in the execution of the second Baptistery gates. It is quite possible that in making cartoons for the windows of the cupola of the Cathedral he would have followed in Ghiberti's footsteps — especially if we assume that the Resurrection window was his first effort.

For a final decision, therefore, as to the designer of this window it will be wise to wait for the opportunity of comparing it with the authenticated windows of Ghiberti on the one hand and of Uccello on the other. This comparison I hope to make as soon as I am free to visit Florence again.

ALLAN MARQUAND.

PRINCETON UNIVERSITY,
December, 1899.

American School
of Classical Studies
at Athens

PIRENE

ἐκ δὲ τῆς ἀγορᾶς ἐξιόντων τὴν ἐπὶ Λεχαίου προπύλαιά ἐστι καὶ ἐπ' αὐτῶν ἄρματα ἐπίχρυσα, τὸ μὲν Φαέθοντα Ἥλιου παῖδα, τὸ δὲ Ὕλιον αὐτὸν φέρον. ὀλίγον δὲ ἀποτέρω τῶν προπυλαίων ἐξιούσιν ἐν δεξιᾷ ἐστὶν Ἡρακλῆς χαλκοῦς. μετὰ δὲ αὐτὸν ἔσοδος ἐστὶ τῆς Πειρήνης ἐς τὸ ὕδωρ. . . . κεκόσμηται δὲ ἡ πηγὴ λίθῳ λευκῷ, καὶ πεποιημένα ἐστὶν οἰκήματα σπηλαίοις κατὰ ταῦτά, ἐξ ὧν τὸ ὕδωρ ἐς κρήνην ὑπαιθρον ῥεῖ, πιεῖν τε ἡδύ, καὶ τὸν Κορίνθιον χαλκὸν διάπυρον καὶ θερμὸν ὄντα ὑπὸ ὕδατος τούτου βάπτεσθαι λέγουσιν, ἐπεὶ χαλκὸς γε οὐκ ἔστι Κορινθίσις. ἔτι γε δὴ καὶ Ἀπόλλωνος ἄγαλμα πρὸς τῇ Πειρήνῃ καὶ περίβολός ἐστιν. ἐν δὲ αὐτῷ γραφὴ τὸ Ὀδυσσεύς ἐς τοὺς μνηστῆρας ἔχουσα τόλμημα. αὐθις δ' ἰούσιν ἐπὶ Λεχαίου τὴν εὐθείαν χαλκοῦς καθήμενός ἐστιν Ἑρμῆς κ.τ.λ.

— PAUSANIAS, II, 3, 2-4.

I. BEFORE THE EXCAVATIONS OF 1899

THE chief result of the work at Corinth of the American School, in the spring of 1898, was the discovery of an ancient fountain façade in the valley just to the east of the well-known ruined temple, and about 120 yards south of the square of the modern village. This façade extends in a line almost due west from its beginning near the road leading from the square up to the large church (Panagia). Visitors to Corinth will recall a single house on the west side of the road embowered in trees, being, by this fact alone, a conspicuous landmark. The façade lay almost wholly under the garden surrounding this house, and several of the trees had to be sacrificed.

We discovered the existence of the fountain house by descending a well in this garden, about 25 feet deep. We

found that it was no well, properly speaking, but a shaft down to a stream of water which supplies the fountain at the village square. This stream issued from an aqueduct of round tiles. Following this aqueduct upwards, we passed immediately between walls upon which rested a stratum of natural rock, so that what we passed through seemed to be half cave and half chamber. At a distance of about 8 feet from the shaft through which we descended, we came into a rock-cut passage about 1 m. broad, running at right angles to our course up to that point. The tile aqueduct, entering it on its upward course, here turned at a right angle from south to west. The passage, like the chamber, had the hard rock stratum for its top, although it was hewn in softer rock below. (For the scheme of the water-courses here described see Fig. 1.¹)

Following this passage, we passed along the backs of four chambers similar to that through which we had made our entrance. We could not see their fronts because they were still nearly filled by the superincumbent earth which had pressed in from that direction, and choked them. But we were able to look into them, and to crawl in far enough to see that they had backs composed of an Ionic column midway between the side walls, and an entablature of the same order running from wall to wall. At the end of the series of chambers, the passage in their rear, which we were following, was narrowed by two antae, one projecting from the back end of the last cross wall, and the other springing out from the opposite side of the passage to meet it. Passing between these, we came into an irregular quadrilateral space with a door to the front. Through the back side, the rock-hewn channel took another turn at an obtuse angle toward the south, with a little westerly inclination. Almost at its beginning, it was crossed by a dam apparently of very modern date, made, probably, when the tile aqueduct was substituted for an open flow of water.

¹ The drawings from which Figs. 1-6 and 9 have been engraved were made by Dr. Arthur Fairbanks; the ground plan (Fig. 10) was drawn by Mr. Benjamin Powell, Jr.

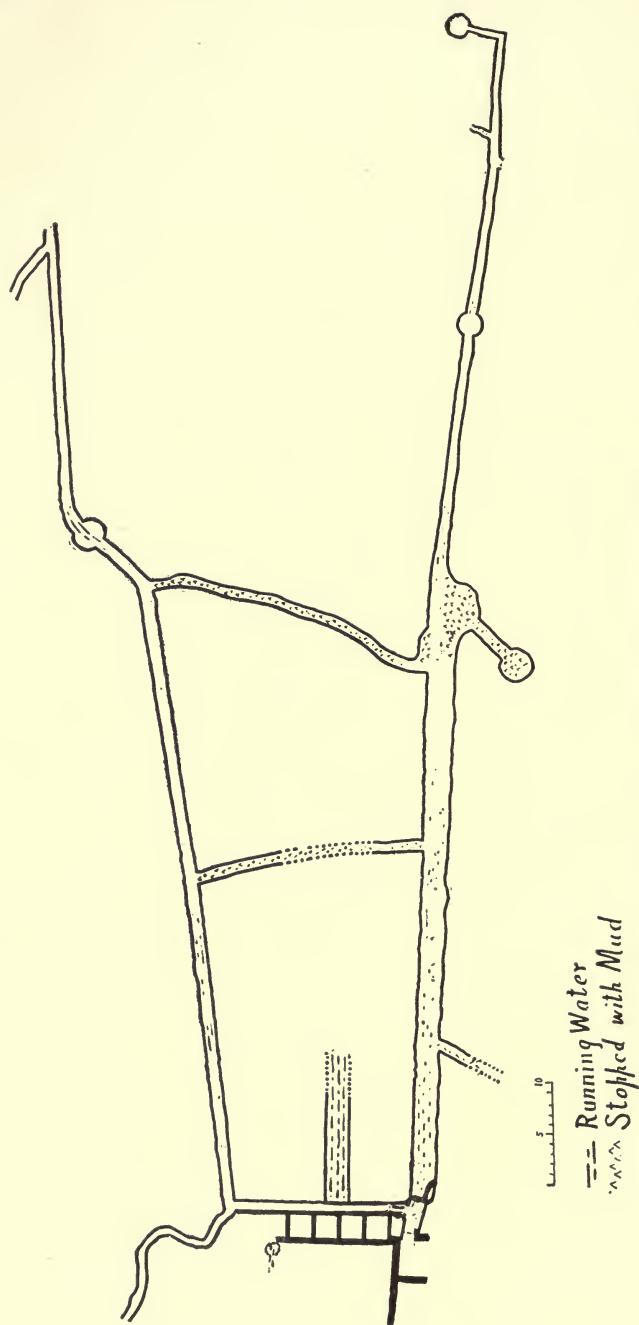


FIGURE 1.—PIRENE: WATERCOURSES.

Held by the dam was a long reservoir about 2 m. broad, which, at a distance of 50 m. from the dam, is superseded by a simple passage about 0.75 m. wide, which, at the risk of stirring up the water supply of the village, we traced back to a distance 114 m. from the dam to a shaft going up to the surface, and serving as a well for the house of Constantinos Giamborani, in which we were then lodging. The water came in some places so near the top of the passage that those who explored the last 30 m. had barely space to keep their heads above water for taking breath. On account of such difficulties, we abandoned the further investigation of this passage; but we had already traced it well on its way toward Acro-Corinth, which is doubtless the source of the water.¹

We also turned eastward from the chamber through which we had entered, and ascertained that the passage behind it continued in this direction only a short distance, passing a single chamber, which completed a series of six in all. Past the east end of this series flowed another stream of water coming down from the south in another rock-cut channel, which we traced backwards about 100 m., until we came to a shaft once used as a well, but now filled up. Between this passage and the other one, which diverges gradually from it, are two cross passages, partly stopped with mud, which once formed a part of a labyrinth of water channels, facilitating the distribution and circulation of water in the rear of our façade. The water which now flows in this second arm passes along just outside the east end of the façade, and, flowing in a direction nearly parallel to that taken by the other stream on leaving the façade, issues in the fountain, much frequented by washerwomen, in the village, by the ruins of the large Roman building, probably a bath, a little below the square. Both streams flow through passages of very rough masonry, through which one may crawl up to the very points where the water is delivered. There is no question that all the water brought down in the whole system of rock-cut channels, was, in antiquity, delivered into the series of

¹ Cf. Paus. II, 5, 1.

chambers.¹ The ground plan (Fig. 2) will make the arrangement of the channels and façade clear.

It may well be believed that this elaborate preparation for delivering water at a point now from 20 to 25 feet underground made us feel that instead of proceeding in a slow way to find the Agora, however near at hand it might be (and this was, at the time, the main object of our search), it would be well to concentrate our efforts on excavating this façade, to see what it would look like when exposed to the light of day. More than this, I felt, when I had once fairly seen the chambers, with their walls of masonry and their tops of native rock, that we could have nothing else before us than that Pirene which Pausanias describes as a 'series of chambers which had the likeness of caves' (*καὶ πεποιημένα ἐστὶν οἰκήματα σπηλαίοις κατὰ ταῦτά*, Paus. II, 3, 3). To no one of the other fountains of Corinth which Pausanias describes, does he attribute anything like this, and to make the identification absolutely sure it only remained to find the marble adornment which he ascribes to Pirene (*κεκόσμηται δὲ ἡ πηγή λίθῳ λευκῷ*, *ibid.*). While the identification seemed practically complete without this, there would have been room for dispute; but this, as we shall see, came in good time, and everything fitted the description of Pausanias exactly. Figure 11 (page 230) gives a view of the façade in its present condition.²

We were able to distinguish three periods in the construction of the façade.

I. The first adjustment was very simple (see Fig. 3). At the edge of a stratum of conglomerate rock a little over a metre in thickness, such as appears all along the edges of the two terraces on which lay ancient Corinth, and on which still

¹ Our own eyes tell us that the tile aqueduct cannot be very old; yet there has been such a break in the traditions of the place since the earthquake of 1859 that nobody appeared able to give us any trustworthy information regarding the sinking of the wells above mentioned. Our landlord, Constantinos Giamborani, for example, was greatly surprised when he ascertained from us the nature of his water supply.

² [After the excavations of 1899. — Ed.]

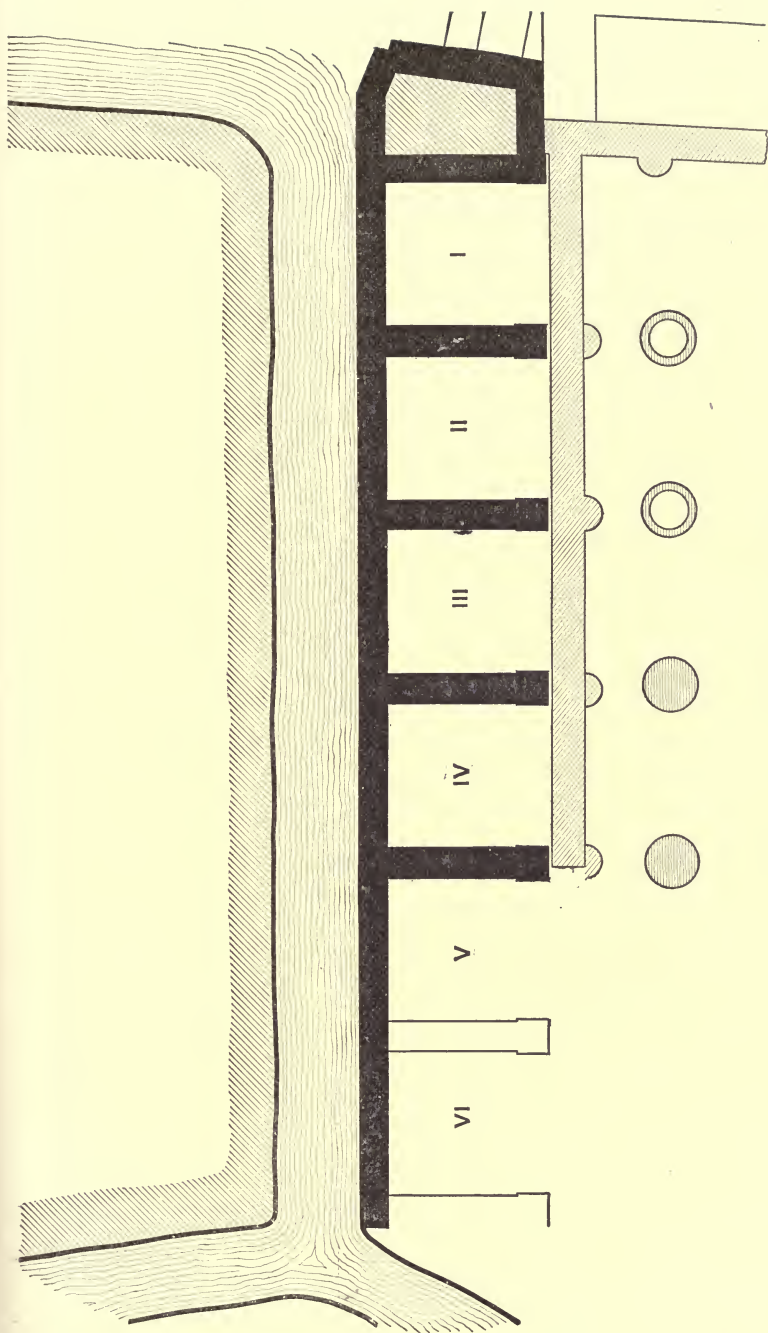


FIGURE 2.—PIRENE: GROUND PLAN.

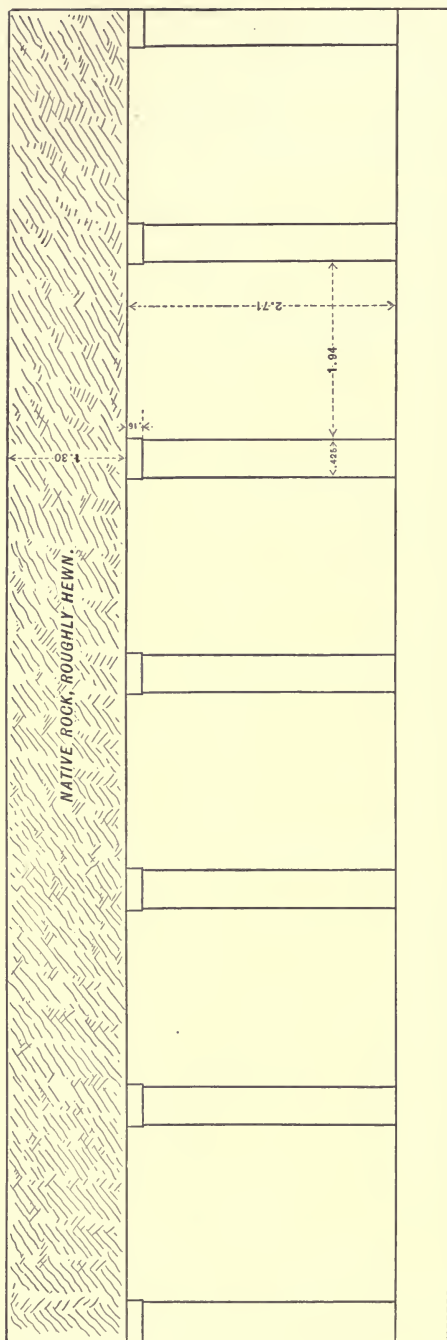


FIGURE 3.—PIRENE: RESTORATION OF FIRST FAÇADE.

stands the modern village, the clay formation under it, hard enough to pass as rock by courtesy, was cut back about two metres and a half, and cross walls of *poros* stone were put in to support the crust, while a passage was left along the back ends of the walls to form a course for the water, which came in from the right and left. The walls ended at the front in very modest antae, formed by broadening them somewhat less than a centimetre (0.008 m.), beginning at a point 0.43 m. back. At the very top is a band only 0.16 m. broad, with a projection of only 0.003 m. The walls bear in some places a very fine stucco of a purplish color. Between these walls at their rear ends runs a parapet 0.50 m. high, on

which stand Ionic columns. At the front is another series of parapets considerably higher (1.32 m.). But these, in their present form at least, can have no claim to be considered so old as the first construction of the system, inasmuch as they are rough masses of clay mortar at the top. The space between walls and parapets, with the rear parapet carrying an Ionic façade, so to speak, is converted into a chamber (*οὔκημα*), or in another aspect into a reservoir. The one which we cleared out had a cement bottom, and had holes irregularly broken through the front and rear parapets. It seems from this roughness as if these holes must have been an afterthought, and that the water must originally have flowed over the top of the rear parapet into the reservoir-chamber, from which, in the time of Pausanias at least, it was conducted into a big basin (*τὸ ὕδωρ ἐς κρίνην ὑπαιθρον ῥεῖ*, Paus. *l.c.*).

The edge of the rough conglomerate stratum was apparently not covered in any way. This, however, might contribute to that appearance of natural caves which in a fountain would be not unattractive. The Ionic architecture at the rear is so much more showy than the rest of the construction that it suggests the question whether this may not have been a later addition. Without this the structure was simplicity itself. But even if it is later, it is an addition rather than a reconstruction. The columns are slender, 0.15 m. in diameter, 1.57 m. in height, including base and capital. A reproduction of this Ionic column, and of the entablature, is given in Fig. 4; the details of the crowning mouldings of the antae are given in Fig. 5. The entablature of the fourth¹ chamber has not so great a height as the others. In several there is an appearance of a slit in the column and the walls, which perhaps points to the insertion of plaques at a time when the ugliness of the passage in the rear may have been felt. But the existence of such plaques is not quite certain. I believe this first fountain

¹ The chambers in this description are numbered from right to left, because that was the order in which we uncovered them, the last two not having yet been excavated. This numbering also follows the present flow of the water.

façade, including the Ionic architecture, was of Hellenic times, and so belonged to the Corinth that was destroyed by Mummius.

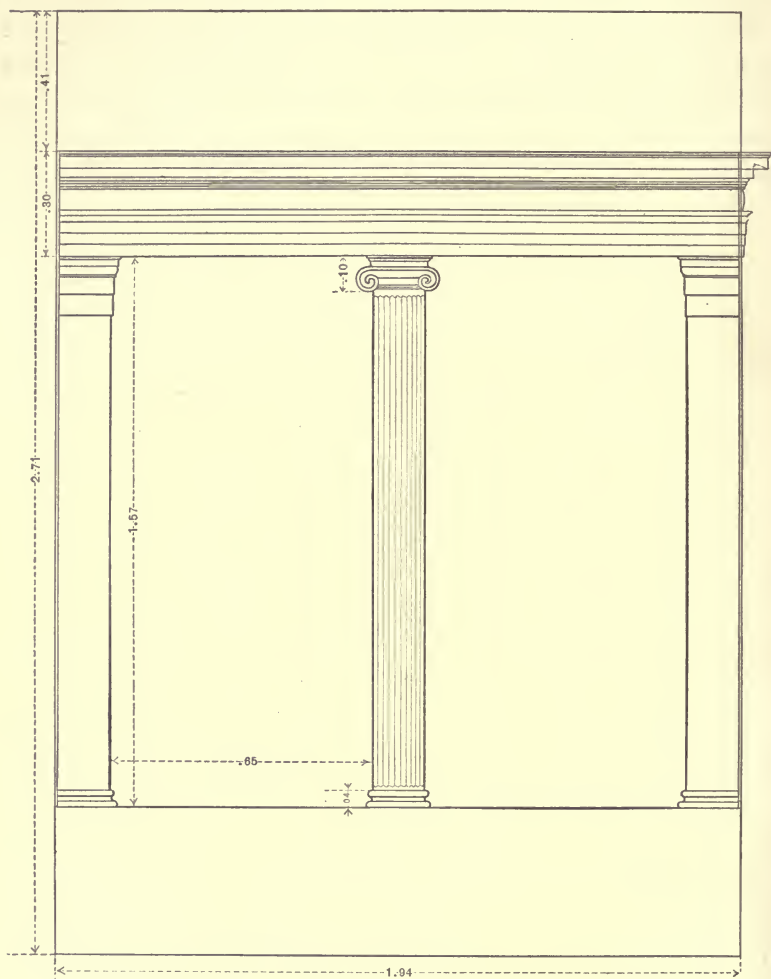


FIGURE 4.—PIRENE: IONIC ORDER AT BACK OF CHAMBER.

II. The next form of the façade was more pretentious (see Fig. 6). It consisted of a two-story front of *poros* stone, with arches in front of the chambers, and of unfluted Doric half-columns between them, for the lower story. The structure of

the upper story, on the other hand, cannot be definitely made out, except that a series of unfluted half-columns continued the Doric half-columns of the lower story. These latter, to judge by the faces, were probably Ionic, and we may suppose that the change of order would lend variety. The upper story was closed, as is shown by three carefully smoothed *orthostatae* here remaining *in situ*. The arches suggest that this reconstruction was of Roman times, and perhaps it belonged to the first rebuilding of the city by Julius Caesar. The more modest arrangement was not sufficiently imposing for Roman taste. Corinth was to be not a simple town among many in a neglected province, but the head of Achaea. The plain antae of the earlier building were entirely covered up, the half-columns of the new façade standing directly in front of them. A good deal of the rock stratum was now hidden, although no attempt was

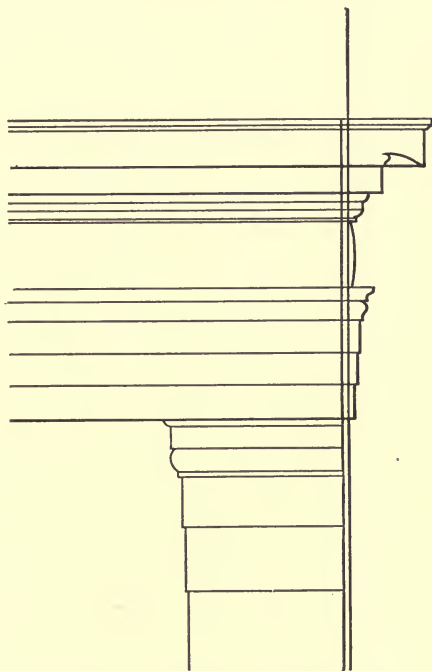


FIGURE 5.—DETAIL OF MOULDINGS.

made to conceal so much of it as appeared in the upper part of the arches. Nevertheless, traces of lime mortar do appear in the ceiling of the chambers, and perhaps this little touch of nature may have pleased even Roman taste. It seems the sort of thing that one would like to retain for a fountain, or to simulate if it was not afforded by nature.

But even this somewhat showy front did not long suffice. An age came when marble was the rage. Herodes Atticus

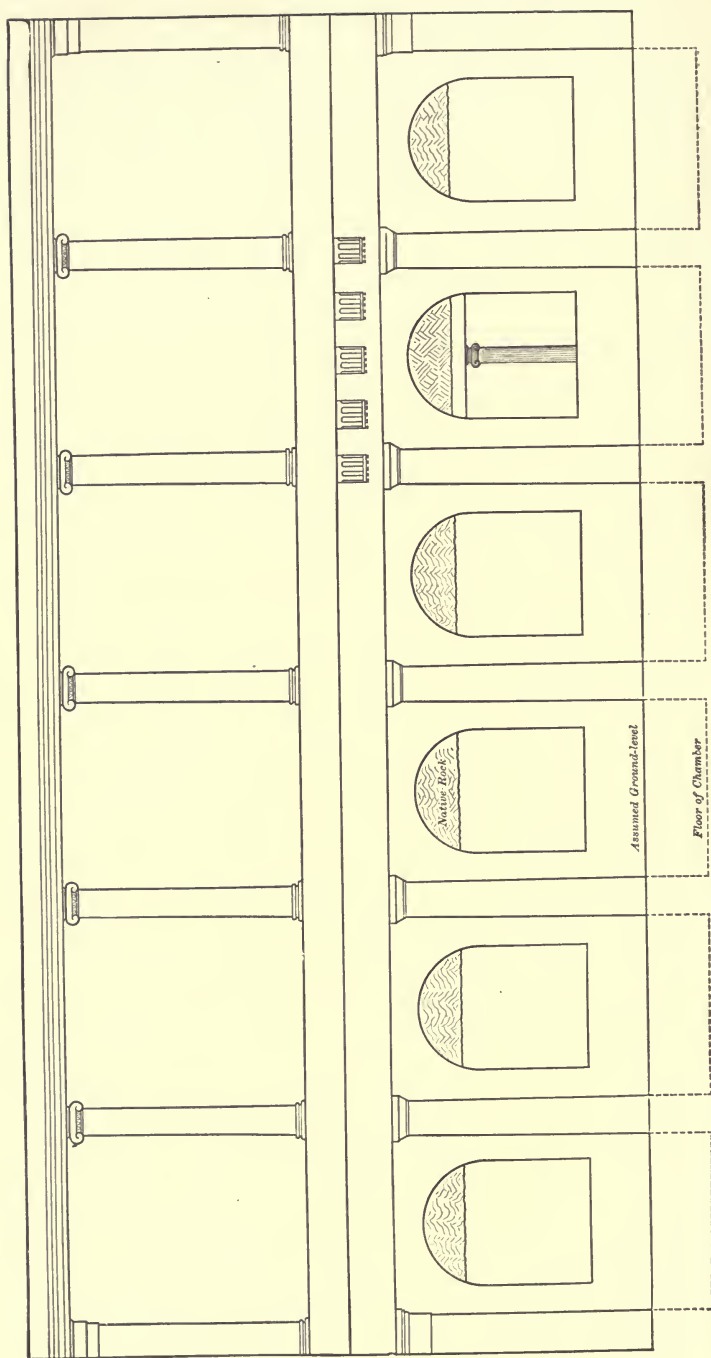


FIGURE 6. — PIRENE: RESTORATION OF TWO-STORY POROS FAÇADE.

clothed the vast Athenian Stadium with marble. The famous fountain Pirene could not appear in such poor attire as *poros* stone. A cheap way to get the desired magnificence was to cover what one already had with a revetment of marble, and this was done. Although not a single piece of marble was found clinging to the *poros* stone, its former presence is attested by three considerations:

1. The face of the stone building bears plainly enough the marks of having been dressed for the application of the marble. The half-columns have their fronts hewn off very roughly. The architrave above them is hacked off still more unmercifully, whereas its under side, in that part which is still left projecting, shows a most carefully wrought surface.

2. There are holes on the faces of the *poros* stone blocks for attaching the marble. That these, though somewhat scanty, are adequate for the purpose is shown by the case of a semi-circular building near by, where the holes are just as rare; but here the presence of the revetment is attested by several pieces of marble still clinging to the wall, partly by the help of mortar.

3. A great quantity of fragments of marble slabs, of thickness varying from 0.025 m. to 0.050 m., was found in the earth which we removed from the immediate vicinity of the façade. A thicker revetment may have been applied to the lower story, and a thinner one to the second. Along the face of the above-mentioned *orthostatae* is a regular line of small holes which might well have held supports for light plaques, but which would hardly suffice for heavy ones. In place of the half-columns in the façade thus transformed there probably appeared marble pilasters, the architect, if so we may call him, not taking the pains to fit circular pieces around the half-columns.

On one of the thinner marble fragments found close against the façade were parts of two lines of a Latin inscription. The letters of the upper line afford nothing intelligible, but the lower line gives ΠΙΡΙΝ. No one will, I think, take exception to reading PIRENE. The fourth letter is the only one which

is in doubt, but, on account of the wide spacing between it and the next letter, it can hardly be an l, although it looks like one. An epigraphist, had the space here been blank, would have supplied an E rather, and to support the reading E here there appears on the much worn face of the stone a little spot which seems to be the end of the upper transverse bar of that letter. Interesting as this mention of Pirene is, our case is so strong that it would be damaged by attempting to make this a second pillar on which to rest our identification. We shall make it at most an interesting corroboration. When we looked at the chambers from the inside we only waited to find traces of the marble mentioned by Pausanias before declaring to the world that we had found Pirene, although our own conviction was clear enough already. But when that also appeared, the absolute coincidence of the structure with Pausanias's description was so exact that there was no room for doubt. This second restoration, then, with its revetment added, is the marble magnificence which Pausanias saw and admired.

Adjoining the façade at its west end, and thrown forward from it, is a parascenium-like wing, not yet entirely excavated. The depth of the structure from front to rear is 3.30 m., but its lateral extent is not yet ascertained. The rear wall is of fine Hellenic masonry, and is set back about a foot farther than the line of the façade with arches, the conglomerate stratum being bare, hewn back just so much farther. Its face is accordingly in line with the faces of the antae of the chambers of the first construction. The rest of the parascenium belongs to the second construction. Its east wall, which has the same half-column construction in two stories, runs up against the good Hellenic wall at the back of the parascenium, without having any organic connection with it. The entrance into this parascenium was a door in its east face. Subsequently a hole had been broken through the front (*i.e.* the north side), which we, in our ignorance, made larger in our first approach to the façade, since we found this rather ruinous wall an impediment in our way to the line which we were seeking.

In our underground exploration we could not ascertain whether there was ever a parascenium at the other end of the line also, an arrangement which considerations of symmetry seem to demand. Our impressions were against its existence, but the earth must be removed before a definite conclusion can be reached. In this quarter our work had to cease when it was approaching completion. The façade lay, as has been remarked, under a garden. Since this had not been expropriated by the government, I bought, at private sale, to gain time, land enough, according to our measurements, to allow us to uncover the whole line; but when we had uncovered five of the chambers, and were just letting daylight into the sixth and last, it became evident that the mass of earth to the east, 7.6 m. high, was dangerous. The earth was soft and black, and needed a great scarp to prevent it from falling. This character of the earth we had not taken into our calculations. Our funds were not sufficient to allow us to purchase at the proprietor's rates the land necessary for clearing out the sixth chamber and a possible parascenium beyond it, and to pay for the several weeks' work involved in the operation. We accordingly confined ourselves to making everything safe against winter rains, and deferred the completion of our work till the following year. We also deferred digging down deep in front of the façade to find traces of Pausanias's κρήνη, inasmuch as it was inadvisable to dig a hole which would allow the water to set back in the winter and contaminate the water supply of the village.

In the meantime, we had laid bare a semicircular building directly in front of Pirene and apparently joined to it by two walls, so that there here results a quadrangular space or court about the fountain. The semicircular building seems, therefore, to have formed a part of Pirene itself after the making of these walls, although one might suspect it to be the Peribolos of Apollo (Paus. *l.c.*). See Figs. 7 and 8.

III. At some time which it would, perhaps, be rash to determine any more exactly than may be done by calling it Byz-

antine, the façade underwent another reconstruction which amounted to a re-creation. In front of the half-columns of the façade already described, at a distance of about 1.50 m.,¹ were set up unfluted Corinthian columns. Running back from these columns to the façade, and roughly let into it by hewing away

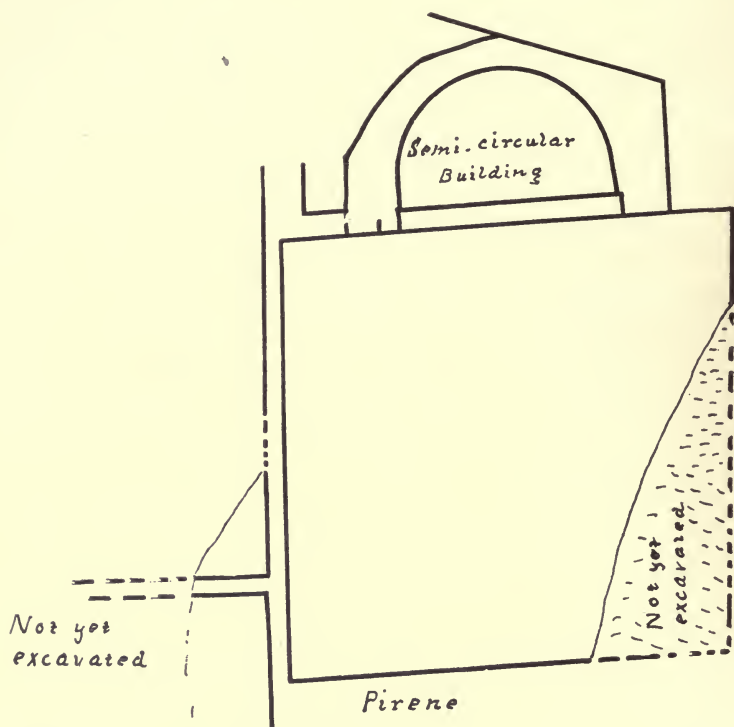


FIGURE 7.—QUADRANGLE BEFORE PIRENE, AS EXCAVATED IN 1898.

the half-columns of the second story at the proper height, were architrave blocks. (See Fig. 9.) The whole arrangement reminds one of the façade of the Gymnasium of Hadrian at Athens, but the work is as slovenly as possible. The columns

¹ The distances are, now at least, unequal. The column between chambers 3 and 4 is 1.37 m., that between 4 and 5 only 1.20 m., from the *poros* façade. It is true that the latter, in the neighborhood of chamber 5, bulges out a good deal either on account of earthquakes or the pressure of the earth.

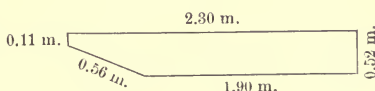
and capitals are of different sizes and of different material, and so evidently taken from some other buildings. The bases, also of different sizes, rest on no other foundation than a pavement of thin marble slabs, which has an appearance of being so late that we intend this year to break some of it up to go down deeper in search of Pausanias's *κρήνη*. The most interesting feature of the system is the architrave blocks, which had clearly served as parts of an Ionic or Corinthian architrave in some



FIGURE 8.—PIRENE: SEMICIRCULAR BUILDING IN FRONT OF PIRENE.

good building. They have been very badly treated for their present application; besides being hewn down on one of the long sides, the ends intended for the front have been bevelled on the under side in the roughest manner, and a conventional palm branch cut on them in such a way as to show well from below.¹ In its new use the block was turned upside down,

¹ The block is of this shape, and of the dimensions here given. Width at the top, 0.43 m.



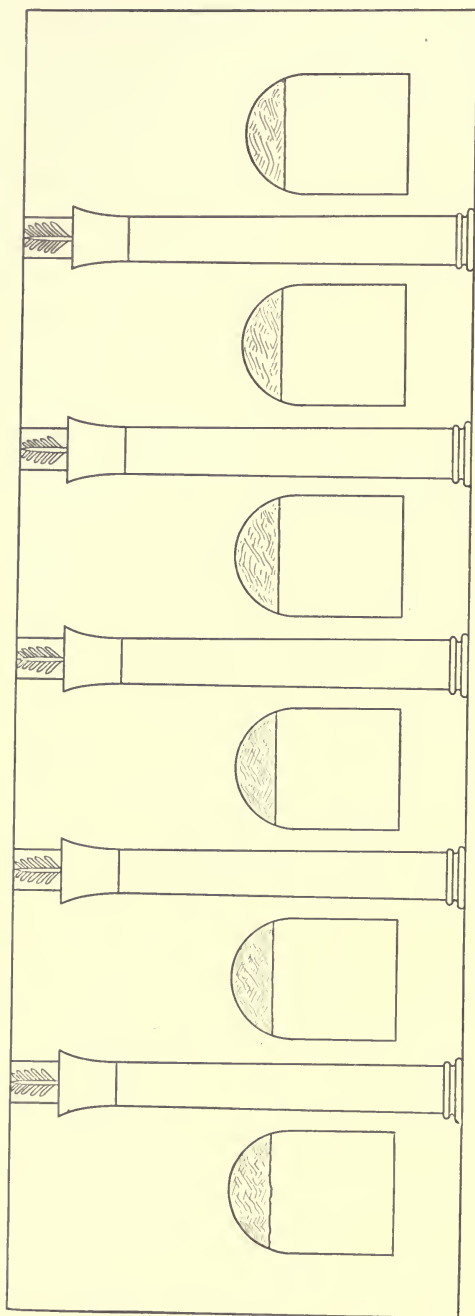


FIGURE 9. — PIRENE: BYZANTINE FAÇADE.

probably because it thus rested on its broadest face. A block not hewn for this new use lies just adjacent to the east wall of the semicircular building; but it is so broken that its original length cannot be ascertained.

Although we found but two columns standing, there could be little doubt that there were once as many as there are half-columns, or one between each of the arches; and what little doubt there might be is removed by the discovery of two more bases at the proper places, between the first and second arches, and also between the second and the third. We shall, then, probably find the fifth also in its proper place. If this clumsy, but

somewhat ambitious, reconstruction did not stop short of a second story, we may suppose it to have carried at the top the marble cornice blocks with dentils and lion's heads of poor workmanship, a half dozen of which we found near the surface, about 62 m. to the northwest. Even in that case, the projecting architrave blocks may have supported statues, a use proposed for the separate columns of Hadrian's Gymnasium Porch at Athens.

A small Byzantine church was built up against the west end of the façade, and took the east wall of the parascenium for its west wall, and the door in that wall for its entrance. As the church extended eastward to the half-column between the second and third arches, it is clear that the two most westerly columns came down when the church was built. It was fortunate that the bases were left lying, to be found by us inside the church and under the wall of the apse. The hole in the north wall of the parascenium may have been broken at that time to make the access to the church. That the church was not one of very primitive times, in spite of its great depth, is shown by its coming after this third façade. Supposing this last reconstruction of the façade to belong to the times of Justinian, to propose a time of some prosperity for the building, we might put the church as late as 1000 A.D. The filling up of this valley with mud is, then, an affair of comparatively recent times. The church may have held its own against it until Turkish times. After the church had stopped up two of the chambers, water appears to have been drawn a good deal from some of the others; the fourth, for example, has, to complete its front parapet, a marble column which, in one part, has been worn 0.10 m. deep by a rope or something of the sort. But in time the earth found its proper level, and covered the church and what was left of the façade, but not before an attempt was made to fight against a strong pressure from above. The fourth column, the only one which still carries its architrave, has had its capital shoved forward, and, to keep the whole from yielding to the pressure, a wall was built to sup-

port it in front. This pressure from above may have been increased by the fall of a building in that quarter, possibly a building to which the second story of the façade served as a front wall. In the débris which came down out of the earth over the fifth chamber was a large *poros* block over 2 m. long and about 1 m. wide;¹ and a similar block was found at a lower level in front of the façade.

Besides the three constructions which we have described, the earliest of which is certainly of Hellenic times, there appears to have been on this very spot another arrangement for delivering water, antedating this considerably. We have thus far noticed nothing which points to a time earlier than the laying out of the two water channels with their ramifications. But in the course of our work we came by accident upon a passage which once delivered water at a much lower level. When we had replaced the fragile tile pipe with an iron one, we wished to give it a solid support in its course along the passage in the rear of the chambers, and so began to clear away the mud there accumulated, in order to build up supports from a rock bottom, and at the same time to ascertain the depth of the channel. In trying to get such a bottom for a support back of the division between the second and third chambers, we found, to our surprise, the top of an arch reaching not quite up to the level of the bases of the small Ionic columns. When the mud grew softer here, and water began to flow out of the arch, we sounded in front of it with a long slender iron rod, and found that it ran down 2.52 m. from the top of the arch. After removing enough earth to allow Mr. Dickerman to crawl in to a distance of ten metres, and observe its careful workmanship and take measurements,² we filled it up again, because the water ran in something of a stream, and we feared lest by encouraging this outlet we should tap the reservoir, and cut off the water from the village. This channel, more than 2.45 m.

¹ Length, 2.02 m. ; width, 0.92 m. ; thickness, 0.59 m.

² Height of the curved part of the arch, 0.52 m. ; total height of the passage, as ascertained by sounding, 2.52 m. : breadth of the passage, 1.915 m.

high, and more than 1.85 m. broad, while not exactly a Cloaca Maxima in proportions, is certainly something that inspires respect, and, considering the much lower level at which it delivered water, we seem compelled, in case we have dated the other systems correctly, to ascribe this to a very remote time, perhaps to think of it as a work of Periander. In that case Pisistratus, in constructing his Enneacrunus system, was following in the footsteps of another tyrant, who recognized, as well as he, how much a people values good and abundant water. This, then, was the Pirene of Pindar¹ and Simonides,² as well as of Herodotus³ and Euripides.⁴ Shall we ever know more of the chronology of these water works? Would that they had been left as dry as those of Pisistratus. Yet with all the difficulties and expense entailed by the fact that we are working on the line of the water supply of an existing village, which we can almost wish had not outlived the earthquake of 1859, we still hope to make the excavation of Pirene complete in the next campaign.

But even now the mere identification has an importance independent of the fame and magnificence of the fountain, which remains even if the chronology proposed is all wrong. This identification locates the Agora within very narrow limits; and with the Agora once fixed one can draw a map of Corinth according to Pausanias. In working up the valley east of the Old Temple we were seeking primarily the Agora, in order to have this point of departure for future work. But in locating Pirene we have located the Agora. Pausanias (II, 3, 2) first takes us out of the Agora by passing under the Propylaea through which goes the road to Lechaëum. He first notices a 'bronze Heracles at a considerable distance to the right as you go out,⁵ and after this is the entrance to Pirene.' And

¹ Pind. *Ol.* xiii, 61.

³ Herod. V, 92.

² Bergk, *Lyrici Graeci*, no. 96.

⁴ Eur. *Med.* 69.

⁵ The usual text, to be sure, gives ἐσιόντων, but Hitzig in Fleckeisen's *Jahrbücher*, 1888, p. 50, long ago corrected this to ἐξιόντων, a reading endorsed by Frazer in his translation of Pausanias, and in his critical notes on the passage. Who could suppose that Pausanias, on starting for Lechaëum, the very moment

now we have by means of excavations been made wiser than we were a year ago, for we have found the 'straight road to Lechaeum' (Paus. II, 3, 4). The broad pavement of white limestone, with watercourses on each side of it, mentioned in the Report of excavations in 1896,¹ has now turned out to be a long thoroughfare leading exactly in the direction of Lechaeum, as we have proved by excavating in three places farther north, and finding the same pavement each time. We have a third of a mile of it, and the last point is pretty near the lower edge of the lower terrace of the city. In following the pavement up in the other direction we found it soon reaching the foot of a broad marble staircase, thirty-eight steps of which we have already excavated. We have almost reached the point where the valley ends, and an extended area with only the gentlest rise toward the south succeeds. That we shall here find the Agora is not yet certain, because we are not sure of the distances; but we may claim to know the direction. To resolve any possible doubts as to this thoroughfare being the road to Lechaeum, it is now seen to pass hard by the baths of either Hadrian² or Eurycles, both of which Pausanias mentions as he passes along this road.³ And here, in spite of much mythological intercalation, he is enumerating the monuments along the road as regularly as he does when he immediately afterwards takes us along the road to Sicyon.

Now, if this paved way is the road to Lechaeum (and how natural it was that such a splendid road should get a name

he got outside the gate should turn around and note the position of objects facing about the other way? The confusion of $\epsilon\varsigma$ and $\xi\xi$, of such frequent occurrence in manuscripts, is in this place much more likely than such a supposition. The same doubt about $\epsilon\varsigma$ and $\xi\xi$ occurs where Pausanias leaves the Athenian acropolis and speaks of the Chalcidian monument. In his notation he probably proceeds straight on, just as he does when he takes the road to Sicyon.

¹ *Fifteenth Annual Report of the Managing Committee of the American School of Classical Studies at Athens*, 1895-96, p. 35, and *Am. J. Arch.*, Second Series, I (1897), p. 462.

² *Am. J. Arch.*, Second Series, I (1897), pp. 495-506, Pl. xxvi.

³ I do not understand Pausanias to refer to *two* roads leading from the Agora to Lechaeum, as Skias does; *Πρακτικά τῆς Ἀρχαιολογικῆς Ἑταιρίας*, 1892, p. 112 ff. Frazer, *Pausanias*, II, p. 23, agrees with me.

that was a quasi-proper name, 'the straight road to Lechaeum,' like the street called "Straight" in Damascus), and if the staircase leads up to the Agora, we should have to put Pirene just where we have found it. But that is not the proper order of argumentation. The position of Pirene is fixed, and *therefore* the road that we have found is the road to Lechaeum, because our knowledge of Pirene sends us to that very place to look for it. The fact that each is in just the right place to fit the other gives strength to the case. It is now a question of a few yards more or less just where we shall enter the Agora. In fact, I should not be surprised if we had already been digging in it, perhaps in two places, viz. in Trench XVI in 1896,¹ where a triple concrete pavement was noted; and this year somewhat farther south, where we proved the existence of a wall over a hundred and fifty feet long, which may prove to be the foundation of a porch bordering the Agora on its upper (south) side. It is true that we have not yet the Agora as a fact to reckon with; but in this region, where the earth is somewhat less deep than in the valley, we shall soon reach the truth.

Still another result of great importance follows in the train of the discovery of Pirene, and the consequent locating of the Agora. Pausanias, having finished the road leading from the Agora through the city in the direction of Lechaeum, takes a new start and proceeds from the Agora out toward Sicyon, and now the first object which he mentions is the temple of Apollo on the right of the road. And lo! on leaving the Agora, as we now know it, with all allowances made for the admitted uncertainties, we pass the venerable ruin so long celebrated as the "Temple of Corinth." Dörpfeld, writing in 1886² of the results of his investigation of this temple and of the question of its name, says: "Wir sind also wie früher auf des Pausanias Beschreibung der Stadt angewiesen, und obwohl diese besonders klar und übersichtlich ist, scheint es mir unmöglich

¹ *Am. J. Arch.*, Second Series, I (1897), p. 478.

² *Ath. Mitt.* XI, p. 305.

unsern Bau mit einem der bei Pausanias genannten Tempel sicher zu identificiren." This was true so long as no point in the topography of Corinth was fixed. But now that we know the position of Pirene (and so, approximately, that of the Agora) on the one hand, and the theatre on the other, this temple is held like Proteus in the grip of Menelaus, and is forced to give up its secret. Even in 1896, as a result of our first campaign, I suggested that this temple might be that of Apollo,¹ and repeated the suggestion somewhat more confidently in my fuller account of the work of that year.² It now seems to me that the location of the other monuments enumerated warrants dropping the hypothetical form, and asserting that this is the temple of Apollo, which was, at least, as old as Periander.³

We have thus accomplished a good deal in the purely tentative work of our first campaign, and in the campaign of 1898 which gave us Pirene. Before this, all was confessedly groping. So enlightened a topographer as Frazer,⁴ as late as 1898, could put Pirene at the place popularly called the "Bath of Aphrodite," which lies outside the north wall of the city towards Lechaeum, forgetting both that Pausanias puts Pirene near the Agora, and that he passes a long series of important objects between Pirene and the city wall. The period of groping is ended; by securing a fixed point, we know more of the topography of Corinth than all the great guessers of the past.

ATHENS,
February 9, 1899.

II. AT THE CLOSE OF THE EXCAVATIONS OF 1899

AT the close of the campaign of 1898 nearly all the information attainable in regard to Pirene seemed to have been already secured. The two easternmost of the six chambers were, it is

¹ *Fifteenth Annual Report of the Managing Committee of the American School of Classical Studies at Athens*, p. 35.

² *Am. J. Arch.*, Second Series, I (1897), p. 464.

³ Herod. III, 52.

⁴ Frazer, *Pausanias*, II, p. 24.

true, still covered with earth; but there was no doubt as to their construction, since they had been entered from the rear and thoroughly examined. We had also nearly cleared a great quadrangle in front of the façade, with a large apse on the side opposite that façade. The immense significance of Pirene as furnishing the key to the topography of Corinth was already apparent without further excavation. Indeed, this result was secured as soon as we had identified the fountain with Pausanias's Pirene, even when it still lay under twenty-five feet of earth. The total effect and general impressiveness of the splendid fountain façade also seemed almost complete without further work.

The campaign of 1899, as far as Pirene was concerned, had for its object to make a finished piece of work, such as is always a delight to the eyes. The alluring part of the campaign was the pressing on toward the Agora, which we knew to be near at hand. But the path of duty, if it did not exactly prove to be the way to glory, did at least lead to some unexpected and satisfactory results, which are worthy to be described, since without such a description the foregoing account of Pirene before the excavations of 1899 would be far from complete. In that account the façade of Pirene, as it appeared in 1898, formed one side of a quadrangle, the opposite (parallel) side being made up, not of a continuous wall, but mostly of an apse and two entrances to the quadrangle, on either side of the apse. The other two sides appeared to be plain walls.

Figure 10, from a drawing by Mr. Powell, gives the ground plan of the quadrangle, and Fig. 11 gives the appearance of the façade of Pirene, now entirely excavated. The clearing of the quadrangle showed apses on the east and west sides, of dimensions similar to those on the north side. Each of the three apses has three niches, of about 3 m. in height, 1.50 m. in breadth, and 0.50 m. in depth. All start from a height of about 1 m. from the floor of the apse. The apses are identical in every respect. Their ground plan is a semicircle prolonged in tangents. The centre from which they are described is

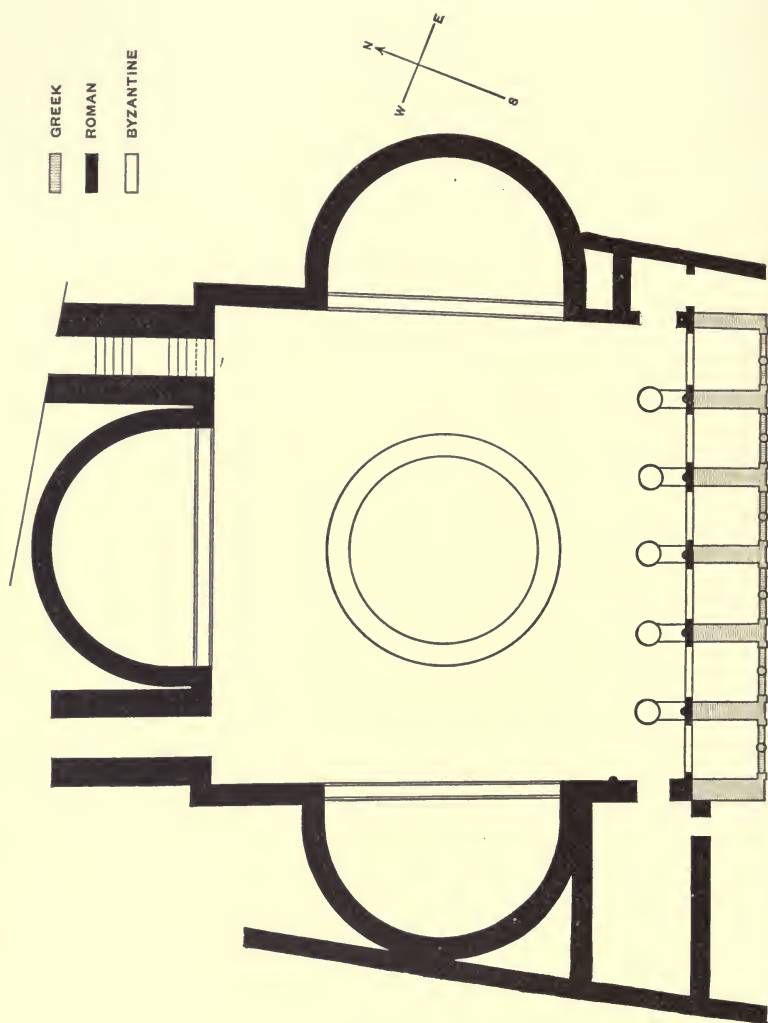


FIGURE 10. — PIRENE: GROUND PLAN (1899).

1.35 m. back of the front. Their total depth is 5.15 m. Closing the apses to the front is a parapet, 0.50 m. thick and 0.35 m. high, made of beton and cased with marble. The walls of the eastern and western apses are preserved to a height of over 5 m.; those of the northern apse are only a little lower. The apses show traces of marble revetment, not only in the holes in the stones of the upper courses, but in the pieces of the marble slabs sticking fast in the mortar at the bottom. In the northern one alone there are remains of red stucco, which once apparently covered the whole wall, before the marble revetment was applied.

The quadrangle is, with one exception, a perfect square. The east side inclines inward, as it approaches the façade of Pirene, so much that, while the north side of the quadrangle measures 15.45 m., the façade of Pirene is only 14.65 m. The only explanation which I have to offer for this irregularity — viz. that to the east of Pirene the hard rock stratum which formed the top of the chambers came more to the front, and would have made a good deal of cutting necessary — seems inadequate. Exactly in the middle of the square is a circular basin, 6.15 m. in diameter and 1.25 m. deep, the wall of which is made by a series of *poros* blocks placed on end. Back of this wall the area of the quadrangle is filled, up to the level of the top of the basin, with earth and mortar, covered with a marble flooring. That water from Pirene once filled this basin is hardly doubtful; not only because it is otherwise difficult to see any reason for its existence, but also because in its floor of hard limestone, like that forming the road to Lechaeum (*Am. J. Arch.*, Second Series, I [1897], pl. xvi) there is a sort of gutter passing through it a little to the west of its centre, which might have served as both delivery pipe and discharge pipe. It is a fact that when we cleared out the basin and poured the water which collected in it into the chambers of Pirene, it flowed gently back through this groove. Since between the basin and the north apse, beneath the marble flooring, there is a deep and broad canal running east and west, the discharge may have



FIGURE 11. — PIRENE: FACADE AS EXCAVATED (1899).

been made into this. One would suppose that there must always have been some difficulty in keeping the little groove clear.

The two entrances on the north side were by flights of steps, 1.50 m. in breadth. The eastern flight only is preserved. The steps are of marble, and are arranged in two groups, — the lower one of five steps, 0.15 m. high and 0.29 m. broad, and the upper one of four steps, of the same dimensions,¹—separated by a step of the same height, but 1 m. broad. In the western entrance (seen in Fig. 12), while the staircase, all but the lowest step, has been removed to make place for a late grave, — which extended eastward through the side of the passage and the wall of the apse, and was vaulted over with brick to support the upper part of the walls, now in danger of falling, — we yet have features which supplement what is lacking in the eastern entrance. We have not only the whole height of the entrance, with the lintel in place (see Figs. 12 and 13), but in each side wall we have a cutting (see Fig. 13), descending obliquely, with a slope equal to that of the staircase in the eastern entrance. This seems to point to a vault thrown across the passage, the roof of which descended as the steps descended. Since one lintel block which now remains *in situ* is cracked in the centre, one might suppose the vault to have been inserted to support it. But it seems quite as likely that the crack in the lintel may have occurred in consequence of the removal of this vault, which was an original part of the system, and so duplicated at the eastern entrance also. In fact, now that the western entrance has taught us to look for it, there is just enough of a similar cutting preserved on the west wall of the eastern entrance to prove the existence of the vault here also. The cuttings, at their lower extremities, are not prolonged to the very end of the passage, but stop about 0.50 m. short of it, doubtless that the vault might not slide downward by its own weight.

How high the walls of the quadrangle were originally carried

¹ The middle step has been removed.



FIGURE 12.—QUADRANGLE FRONTING PIRENE; FROM THE NORTHEAST.

up, it is impossible to say. It is not unlikely that they had the same height as the second story of the Pirene façade. The apses probably had some sort of covering, not only to protect the statues which were presumably in the niches, but, what was perhaps more important, to protect the people frequent-



FIGURE 13.—OUTSIDE THE WEST ENTRANCE TO PIRENE.

ing the attractive place from sun and rain. Since the span at the front was rather long (7.60 m.), an architrave block would have required the support of a column in the middle; but the thin revetment of marble over the beton parapet could hardly have supported such a column, and the covering, if it existed, was probably a half-dome.

Near the west end of the façade of Pirene is a large room, a sort of parascenium, from which there was access to the water flowing along in the rear of the chambers. At the east end is a smaller one. The southern prolongation of its east wall was prompted by the need of support for the covering stratum of conglomerate, which is here especially crumbly.

This great square of over fifty feet to each side, with its coating of marble, and the great water basin in the middle, the apses, with their niches filled with statues, and, on the south side, the showy façade of Pirene, from which flowed the water which formed the attraction of the place, must have been a very impressive affair.

The round basin seemed the one thing which was lacking, in 1898, to complete the correspondence of the remains of Pirene with the description of Pausanias, who says that 'the water flowed out from a series of chambers which resembled caves into a basin under the open sky.' The temptation to identify the round basin with this *κρήνη ὑπαιθρος* is too great to be easily resisted; and yet, perhaps, it must be resisted. The present marble floor of the quadrangle is suspiciously shabby. The slabs are thin, and the joints irregular. In one case an architrave block has been utilized as a paving stone. The white limestone pavement, 1.25 m. lower, looks more like an ancient level. One would expect, from the description of Pausanias, a long quadrangular basin extending the whole length of the façade, close up against it, and receiving the water through lion's-head spouts,—an arrangement like that seen in the Exedra of Herodes Atticus at Olympia.¹ If there were a basin of this kind here, the groove in the white limestone pavement would be a surface canal for carrying away the surplus water. The great reason for positing another basin, at a greater depth than the present one, is that only so do we get anything like the usual fall for the water, which could, perhaps, only thus be said by Pausanias to *flow* (*ρεῖ*) out of the chambers into a basin.

¹ *Ausgrabungen zu Olympia*, III, Taf. xxxvii.

Reluctance to disturb what appeared to be an organic unity led us to refrain from breaking up the round basin and the marble floor around it, in order to lay bare the limestone pavement below. An attempt to dig lower along the façade was frustrated by the very hard beton which was found there. Even if we persevered, we might get no reward of our labor; for the basin may have been thoroughly broken up, and removed, when the present one was constructed. Little support for its existence can be got from the rude breaks in the front parapets of the three chambers to the west, which we cleared out to their bottoms, at a depth of 1.50 m. These breaks appear, as seen from the inside, too rude to have served for the affixion of lions' heads. But these parapets, also, may have been remade.

There is one consideration which might lead us to see in the present basin that of Pausanias. There was found, — perhaps not *in situ*, but lying on the marble floor, — halfway between the basin and the front of the eastern apse, a base on which once stood a statue of Regilla, the wife of Herodes Atticus. An inscription on this base reads thus (see Fig. 14):

ν]εύματι Σισυφίης βουλῆς παρὰ χεύματι πηγῶν
'Ρηγίλλαν μ' ἐσορᾶς εἰκόνα σωφροσύνης.¹

It may be assumed that this statue was set up before the death of Regilla, which was about 160 A.D.,² while the Second Book of Pausanias was composed after 165 A.D.³ The contents of the inscription seem to show that the base had not been moved far from its original place. One might jump to the conclusion that the marble floor on which the base rests must, then, be older than Pausanias's description. But even if the marble flooring is later than the description, the statue might still have been displaced and set up again at the higher level. This would not be so difficult nor so improbable as to con-

¹ The letters Υ. Β. below the inscription show that the βουλῇ voted (ψήφισμα) the erection of the statue; the adjective 'Sisyphean' is little more than a poetical form for 'Corinthian' (cf. Theoc. *Id.* xxii, 158).

² W. Gurlitt, *Pausanias*, p. 58.

³ W. Gurlitt, *op. cit.* p. 1.

stitute an insuperable objection to the theory of a late date for the present flooring. The marble steps, which cannot well be separated from the present flooring to which they lead down, point to a very late time, when the level to the north of the quadrangle was suspiciously high.

The question of the date of the marble revetment of the façade of Pirene is another matter. Pausanias (II, 3, 3) speaks of Pirene as being adorned with marble. This may

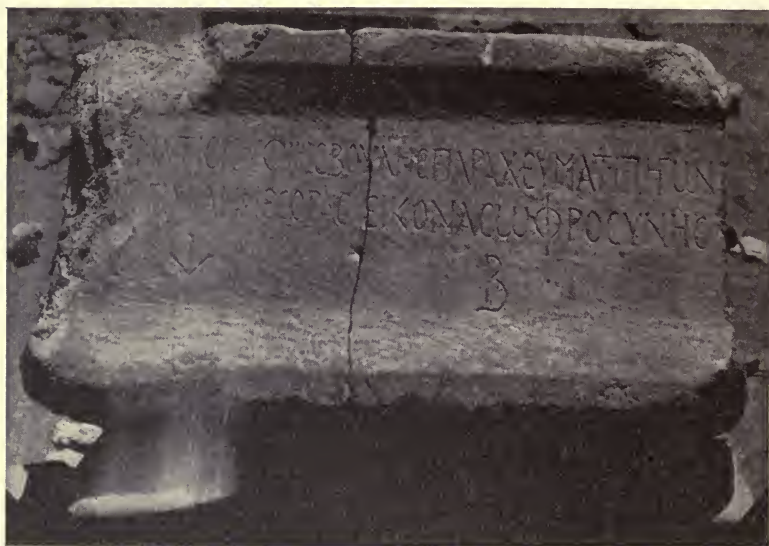


FIGURE 14. — BASE OF THE STATUE OF REGILLA.

refer only to the façade, and I have already (p. 215) tentatively ascribed this ornamentation to Herodes Atticus. The discovery of this inscription makes the supposition almost a certainty. It is difficult to see why Regilla should have had her statue set up 'at the outpouring of the fountains,' except to commemorate some conspicuous service. We know that Herodes Atticus erected the Odeum at Corinth,¹ and that he extended his benefactions to the Isthmian precinct.² He was

¹ Philostratus, *Vit. Soph.* 236, τὸ ὑπωρόφιον θέατρον ἐδέξατο Κορινθίους.

² Paus. II, 1, 7.

just the man to adorn Pirene with marble. In one way this was not so conspicuous a benefaction as the two just mentioned. In fact, I have no doubt that the façade suffered by it. But to an age that loved to cover everything with marble, it constituted—especially in the minds of the ‘Sisyphean’ senate,—an ample claim to an honorary statue to Regilla.

When we had only one apse, we entertained the suspicion that this might be the ‘peribolos of Apollo,’ generally understood to be mentioned in Pausanias (II, 3, 3; cf. *Am. J. Arch.*, Second Series, II [1898], p. 236). When the quadrangle, with its three apses, appeared to constitute such a close unity with the façade of Pirene,—a unity which was emphasized by the half-column system extending around to the west wall by the door which leads into the parascenium of the façade,—it began to seem questionable to play with this hypothesis. But the following considerations lead me still to entertain it, at least as a hypothesis:

(1) Pirene to Pausanias appears to have been the chambers, and the basin adjacent to them. And when he speaks of the statue of Apollo as being set up *πρὸς τῇ Πειρήνῃ*, one might suppose that it was close to the façade. The form of the phrase is significant, *ἔτι γε δὴ καὶ Ἀπόλλωνος ἄγαλμα πρὸς τῇ Πειρήνῃ καὶ περίβολος*. Here is no note of passing along to something else, like *μετὰ αὐτό* or *ὀλίγον ἀποτέρω*. Pausanias is still lingering around Pirene, and marks his moving away from it in the next section, where he says, ‘proceeding now on the straight road to Lechaeum.’ Then, too, if he had been speaking of an enclosure and statue separated from Pirene, he would almost certainly have mentioned the enclosure first, according to his wont. I believe that the words of Pausanias ought to be translated, ‘There is, furthermore, next to Pirene a statue of Apollo and an enclosure,’ and that they contain no allusion to any precinct of Apollo at all, but only to the quadrangle which I have just described.

(2) It seems not without significance that there are nine niches, just fitted for nine muses, whom the Romans would

almost surely bring into the company of Apollo. It may be added that on the staircase of the eastern entrance was found the slender female figure, of the type appearing in the Mantinea Reliefs, which might readily be understood to be a muse.

(3) In the north apse the red stucco, which antedates the marble revetment, may well have contained the picture of the slaying of the suitors by Ulysses, mentioned by Pausanias as being in the enclosure.¹

We thus get rid of a difficulty arising from the usual view, which makes Pausanias mention two sacred precincts of Apollo less than a hundred yards apart, now that we know that the venerable temple on the hill just to the west is the temple of Apollo.²

In closing I wish to mention an interesting discovery, which for a while I was afraid was an archaeological fraud, like that by which the excavators of the temple at Aegina were led to give it the name of "Temple of Zeus Panhellenios." On turning over a heavy Ionic architrave block, which had been lying with its face downward, we found on that face, between two mouldings, a most remarkable inscription in red paint, which is now in some parts nearly obliterated. And yet the whole may be made out with certainty. The following is approximately a facsimile, except that in the original the letters are more slender and incline slightly to the right:

ΤΟΝΟΡΩΜΕΝΟΝΟΝΤΑΚΟΜΟΝΤΗΠΕΙΡΗΝΗΠΑ.

τὸν ὀρώμενον ὄντα κόσμον τῇ Πειρήνῃ πα..

The forms of the letters — which are 0.13 m. high, and very long in proportion to their breadth — would seem to put it not earlier than the Byzantine period. However it may be com-

¹ Paus. II, 3, 3, ἐν δὲ αὐτῇ γραφῇ τὸ Ὀδυσσεὺς ἐς τοὺς μνηστῆρας ἔχουσα τόλμημα.

² After coming to a conviction that the passage in Pausanias under discussion might be thus interpreted, I noticed that Frazer in his translation seems to understand it in this way. He translates: "Near Pirene there is also an image of Apollo, and an enclosure containing a painting of Ulysses attacking the suitors."

pleted on the following blocks,¹ it tells its own story. It was a part of the ornamentation of Pirene. It is one of several blocks found about the fountain, some of which had been appropriated from an earlier use to the Byzantine reconstruction. It is possible that they came from the Propylaea which almost overhung Pirene.

RUFUS B. RICHARDSON.

ATHENS,
March 3, 1900.

¹ The block is the middle one of those lying on the parapet at the front of the apse in Fig. 12. At the right end the upper side shows two dowel holes, for joining it to another block. Iron and lead still remain in the hole nearest to the front.

ARCHAEOLOGICAL NEWS¹

NOTES OF RECENT EXCAVATIONS AND DISCOVERIES; OTHER NEWS

HAROLD N. FOWLER, *Editor*

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GENERAL AND MISCELLANEOUS

BULLETINS OF SEMITIC EPIGRAPHY.—At the meeting of the Académie des Inscriptions, September 1, 1899, the Marquis de Vogüé presented a plan which has been adopted for the periodical publication of *Bulletins d'Épigraphie Sémitique*, which shall be to the *C.I.S.* what the *Ephemeris Epigraphica* is to the *C.I.L.* (*C. R. Acad. Insc.* 1899, p. 549.)

NECROLOGY.—**Auguste Allmer.**—The death has to be recorded of M. Auguste Allmer, the distinguished epigraphist. He was born in Paris in 1815, but his archaeological researches were mainly confined to Southern France, he being long the curator of the Lyons Museum. His principal publications were *Les Inscriptions Antiques de Vienne* and *Les Inscriptions Antiques de Lyon*, the last published in conjunction with M. Paul Dissard. He founded and edited the *Revue Épigraphique du Midi de la France*. (*Athen.* December 2, 1899.)

Jan Pieter Six.—Jan Pieter Six, who died at his country seat at Hilversum on July 17, in his seventy-fourth year, belonged to an Amsterdam family which has been renowned for generations in the history of Dutch art. He was an eminent authority in ancient numismatics, especially in the coins of Asia Minor. His researches on the coinage of Phoenicia, Cyprus, and Lycia have secured a high rank in the annals of the science. (*Athen.* August 5, 1899.)

Sir Arthur Blomfield.—The English architect and archaeologist, Sir Arthur Blomfield, has died at London, at the age of sixty-nine years. He

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor FOWLER, Editor-in-charge, assisted by Miss MARY H. BUCKINGHAM, Professor HARRY E. BURTON, Professor JAMES C. EGBERT, JR., Professor ELMER T. MERRILL, Mr. GEORGE N. OLCOTT, Professor JAMES M. PATON, and the Editors, especially Professor MARQUAND.

No attempt is made to include in the present number of the JOURNAL material published after December 31, 1899.

For an explanation of the abbreviations, see pp. 286, 287.

had been since 1888 a member of the Royal Academy. (*Chron. d. Arts*, December 16, 1899.)

Joachim Menant.—Joachim Menant, member of the Institute of France, etc., the well known Egyptologist, died August 30, 1899. He was born in 1820. (*S. Bibl. Arch.* XXI, 1899, p. 257.)

EGYPT

Objects found in Egypt, 1897-99.—Work in Egypt, carried on by English, French, and Germans, has brought to light a few articles of Mycenaean art, third style (Thebes); vase fragments of all the styles hitherto known and many vase-inscriptions (Naucratis); Hellenistic vases including a species of polychrome in Greek shapes, Roman pots and imitations of *terra sigillata*, and a Roman wooden plough (the Fayoum); a counterfeiter's outfit of Roman times (Ehnas); an unusually good double portrait on wood, a man and a woman (Arsinoe); two small late Ptolemaic capitals with full polychrome decoration (Alexandria); a beautiful gold snake-bracelet and other jewelry (Memphis). The survival of old Egyptian art into Greco-Roman times is shown by the wall-decoration of Faience mosaic with deep blue and orange colors, the prototype of the third Pompeian style (Denderah). (F. W. v. BISSING, *Arch. Anz.* 1899, 2, pp. 57-59; 3 cuts.)

Exhibition of Results of Excavations.—In *S. S. Times*, October 14, 1899, Steindorff briefly describes the exhibition, at University College, London, of the results of Petrie's excavations in the cemeteries along the western desert, between Hu and Denderah. The tombs range from the earliest times to the Roman period. The most important discovery made here is that of peculiar tombs of the end of the middle kingdom, about 1700 B.C. They are circular pits, about 2 feet deep and 4 feet across. Petrie called them "pan graves." As in the oldest graves,—for example, those in the cemeteries of Ballâs and Naqâda,—so here the bodies are cramped up. The pottery is in part identical with that of the twelfth dynasty and later, and we can, by means of it, approximate the age of these graves. A peculiar feature is the burial of many skulls of domestic animals, such as oxen, sheep, and goats. In some cases over a hundred skulls were found together. The backs are all cut away, so that they can be hung up like the Greek bucrania. The facial bones are decorated with spots and lines of black and red paint put on with the finger. This custom of hanging up skulls goes back to the earliest ages of Egyptian history.

ALEXANDRIA.—Excavations.—Work on the site of the old city during the winter of 1898-99 has established three building epochs, marked by three water systems, dating from the foundation of the city, from Augustus, and probably from Hadrian. There was apparently a gold-smith's establishment connected with the palace, as well as one for cutting precious stones. A portrait-head of Alexander in the Sieglin collection is earlier than the British Museum head, and connects the type with the school of Praxiteles. The finding in the Delta of several copies of a group of wrestlers similar to the Antioch bronze published by Förster, suggests an Alexandrian original. (SCHREIBER, *Arch. Anz.* 1899, 3, p. 135.)

CAIRO.—Inspectors of Ancient Monuments.—Mr. Edward Quibell, M.A., and Mr. Howard Carter have been appointed Inspectors of Ancient

Monuments in Egypt. There is now some probability that the destruction of recent years may be arrested. The Ministry of Public Works at Cairo is to be congratulated on the appointment. (*Athen.* November 25, 1899.)

Director of Antiquities.—All interested in the art of ancient Egypt and the preservation of the monuments in that country will rejoice to hear that Professor Maspero has been appointed to the post of Director of Antiquities in Egypt, an office which he filled with such signal success ten years ago. (*Athen.* December 23, 1899.) The *Chron. d. Arts*, October 21, 1899, says that Professor Maspero is appointed general overseer of excavations and Director of the French School at Cairo.

Library of Professor Ebers.—We hear the valuable library of the Egyptologist Georg Ebers is to be housed at Gizeh, where a complete *Fachbibliothek* is being established. (*Athen.* December 23, 1899.)

ILLAHUN.—**Borchardt's Excavations.**—In June, 1899, Borchardt began to excavate in the ruins of the town near the pyramid of Usertesen II (twelfth dynasty) at Illahûn, now called Kahûn. In 1889–1890 Petrie excavated here and found much pottery and many utensils, but his most valuable discoveries were fragments of papyri, published by Griffith as *Hieratic Papyri from Kahun*. Many similar papyri were afterwards found by the natives. Borchardt has found no further hieratic papyri and only one fragment of Mycenaean or Aegean pottery. But he has studied the ruins and found that the town (called Hetep-Useratesen, 'King Useratesen is contented') was not a mere settlement for the builders of the pyramids, but a residence of Useratesen II. On what Petrie calls the acropolis was the palace of the Pharaoh. In Egypt, as in Assyria, it appears to have been customary for each king to build for himself a palace and a city. (STEINDORFF, *S. S. Times*, August 5 and October 14, 1899.)

KARNAK.—**Injury to the Temple.**—A. H. Sayce (*London Times*, October 15, 1900; *New York Evening Post*, October 26) writes that eleven columns of the hypostyle hall of the great temple at Karnak have fallen. These can be set up again, but the architraves about them are destroyed. The whole building is in a critical condition. The fall of the columns occurred October 9, 1899, probably in consequence of a slight earthquake.

THE VALLEY OF THE KINGS.—**Tomb of Thutmosis I.**—In May, 1899, Loret discovered the tomb of Thutmosis I, the first of the Pharaohs to make his tomb in the rock of the valley instead of building it in the plain. The tomb is a small one, of only two chambers. It had been rifled and the mummy unwrapped. But the robbers had wrapped it up again and restored it to its mummy case. In the tomb were a papyrus containing texts from the *Book of the Dead*, with colored pictures finely executed; a draught-board, with a full set of draughtmen; some garlands; thirteen large earthen beer jars, and a large number of other vessels; weapons; two beautiful armchairs; and remains of food. The most remarkable piece of all is a large and beautifully preserved couch, consisting of a quadrangular wooden frame, overspread with a thick rush mat, over which were stretched three layers of linen with a life-size figure of the god of death, Osiris, drawn upon the outer layer. The figure itself was smeared with some material intended to make the under layer waterproof. Over this, mingled with some adhesive substance, soil had been spread, in which barley was planted. The grains had sprouted, and had grown to the height of from

2½ to 3 inches. The whole, therefore, represented a couch whereon the dead Osiris lay figured in greensward. One of the few tombs in the valley not belonging to a member of the royal family is that of the fan-bearer, Mäher-prê, found not long before that of Thutmosis I. It is between the tombs of Setnacht and Amenophis II. (STEINDORFF, *S. S. Times*, July 8, 1899.)

BABYLONIA AND ASSYRIA

BABYLON. — **The German Expedition.** — The second number of the *Mittheilungen* of the Orientgesellschaft contains Koldewey's preliminary report of excavations at the Kasr mound at Babylon. The outer wall of brick with the stamp of Nebuchadnezzar is 7.25 m. thick, backed by 21.5 m. of sand and other material, while the inner wall of brick is 13.10 m. thick, making a total of 41.85 m. Inscriptions have been found, and also many pieces of the glazed tile with reliefs which adorned the palace walls. The reliefs were partly on a blue and partly on a green background. The fragments show parts of the human body, lion skins, eyes and paws, and rosettes. A later report mentions the discovery of a very thick wall, probably that of the palace proper. (*Independent*, September 14, 1899.) The expedition has discovered a finely preserved stele of dolerite, 1.28 m. high and 0.53 m. wide, which bears on the flat front side the image of a Hittite god. He is bearded and in the act of stepping forward. Both arms are raised from the elbow; the left hand carries a trident, the right a large hammer, and a sword is carved on the left side. The head is covered with a Phrygian cap, the hair hangs down in a long braid, the decorated outer garment descends to the knees, and the shoes are sharply pointed and curved. It is evidently a Hittite god, probably Tishub, the god of thunder. On the back of the stele is a Hittite inscription of six lines. A second discovery is a limestone slab, 1.33 m. high and 1.21 m. wide. This also bears a relief and an inscription. To the left is the goddess Ishtar with a bow. In front of her, and like her facing the right, is the god Hadad or Ramman with two forks of lightning in each hand. In front of him, in a worshipping position, is a third image, a smaller man, and behind this figure another larger image of a god. The figures are designated by inscriptions as "Image of the goddess Ishtar," "Image of the god Hadad," and "Image of Shamash-Shaknu, the man from the lands Shuchu and Maru." Between the figure of the man and that of Hadad are the words: "A measure of meal, one measure of wine I have appointed as a settled matter by this stone tablet. He who guards the palace shall enjoy these." To the left of this relief and beneath it were found five columns of Neo-Babylonian writing, in which Shamash-Shaknu, according to Meissner's translation, mentions what he has done for the country. One of the important points is that he has restored the canal of the land of Shuchu, and cleared it of reeds and made it 22 ells wide. The inscription is important because it contains a number of geographical terms. Shuchu is recognizable as the land of Job's comforter, Bildad, the Shuhite. (*Independent*, January 18, 1900.)

NIPPUR. — **Excavations of the University of Pennsylvania.** — An account of these excavations is given in the report of the meeting of the Archaeological Institute of America (p. 157, above). H. V. Hilprecht gives a similar account in *S. S. Times*, July 8, August 5, September 9, October 14, December 23, 1899, and January 13, 1900. The finds include several thousand

inscribed tablets, sculptured stones, and walls, of various dates as far back as the time of Naram-Sin, about 3750 B.C.

TELLO. — **Early Inscriptions.** — In *C. R. Acad. Insc.* 1899, pp. 345-349, L. Heuzey publishes (2 pls.), with translations by F. Thureau-Dangin, three inscriptions found by de Sarzec in 1898. Two belong to the period of Naram-Sin, the conqueror of the year 3758 B.C. They are engraved upon oblong plates which were probably the bases of statuettes. One adds to the list of Naram-Sin's conquests the name of the country of Armanou. The other mentions a second son and a grandson of Naram-Sin. The third inscription, repeated upon several bricks, is still earlier. It belongs to the patesi of Shirpourla, Enannatouma, grandson of Our-Nina, and records the construction of warehouses to keep the cedar wood brought from the distant mountains. De Sarzec has found in the neighborhood very early buildings in which the foundations of several pillars of cedar still exist.

MESOPOTAMIA

ARSLAN TASH. — **Sculptures.** — In *C. R. Acad. Insc.* 1899, pp. 523-524, is a communication from Hamdy-Bey on antiquities at Arslan Tash (the Lion's Rock), not far from Orpha, the ancient Edessa. In 1883 he found there two colossal statues of lions, a block with two bulls, and several slabs with reliefs representing soldiers. As a result of excavations the museum at Constantinople obtained eighteen sculptured slabs. A larger slab (1 m. by 1.84 m.) has recently been found, on which is a relief representing a two-horse chariot upon which are two men; the chariot being followed by a horseman. There are indications of a row of reliefs like the friezes of Assyrian palaces. These sculptures are in basalt, and their style is more frankly Assyrian than is that of the so-called Hittite monuments. The date may be that of Sennacherib or the Sargonides (seventh century B.C.). The relief described above is published with an extract from a letter of Hamdy-Bey in *C. R. Acad. Insc.* 1899, pp. 617-619; pl.

ARMENIA

INSCRIPTIONS. — In *Sitzb. Berl. Akad.* 1899, pp. 745-749, W. Belck and C. F. Lehmann continue the account of their journey in Armenia. The stele Kel-i-giaur, "the grey stele," stands by the road between the villages Sidikan and Topzanä. It is inscribed on two sides in Chaldic, on two in Assyrian. It was set up by Rusas I, Sardurihinis. It records the suicide of Rusas, however, after his defeat by Sargon II. It also records the restoration of a place, Muşâsir, and this led to the discovery of the site of this ancient Chaldic city near where the stele stands. Several inscriptions were found in and near Van by Belck. At the "Spring-grotto of Sebeneh-su," Lehmann found that the inscriptions ascribed by Schrader (*Abh. d. Berl. Akad.* 1885) to Tuklat-Ninib II and Ašurnâsirabal, both belong to Salmanassar II. He also found two new inscriptions of Salmanassar II. These all have to do with Salmanassar's wars with Aram, the earliest known king of Urartu. We learn that Salmanassar visited the source of the Tigris three times, — in the seventh, fifteenth, and thirty-first or thirty-second years of his reign. Other inscriptions are briefly mentioned and the itinerary of the journey is given.

PALESTINE

Greek Inscriptions.—In the *Mittheilungen d. Deutschen Palaestina-Vereins*, 1899, pp. 56-61, R. Brünnow publishes twenty-three Greek inscriptions from Palestine. Most of these had been published before. Inscriptions from Jerach (Gerasa) and a plan of the place have been published by Schuhmacher in a recent number of the *Mittheilungen d. Pal.-Vereins*. (*S. S. Times*, August 5, 1899.)

TELL-ES-SÂFI. — Excavations.—On May 4, 1899, shortly after the temporary close of the excavations at Tell Zakariya, Bliss and Macalister began excavating for the Palestine Exploration Fund at Tell-es-Sâfi, situated to the west of Tell Zakariya. In consequence of the fact that a modern village and two graveyards occupy the larger part of the summit of the Tell, there is little space left for excavations. The first task was to sink trial trenches to determine the nature and depth of the accumulations. Thousands of potsherds were found. Dr. Bliss recognized four different strata of pottery,—"a pre-Israelite stratum on the rock, older than the lowest stratum at Tell Zakariya; a later pre-Israelite stratum; a stratum contemporaneous with the Jewish period, and extending into Greek times; and a crusading stratum." In the third Jewish stratum, two jar-handles, with royal stamps, occurred,—one illegible, the other inscribed "To the king—Shocoh" (*i.e.* "has furnished, devoted it").

Many small objects were found, and long sections of the city wall were laid bare. It did not rest on the rock, but on the lowest stratum of débris, a circumstance which seems to indicate "that the wall was not built much earlier than the Jewish period." It consists of external and internal facings of rubble, with a filling of earth and field stones, with projecting buttresses. While tracing part of the eastern wall, Dr. Bliss discovered the most interesting objects so far brought to light at Tell-es-Sâfi, evidently cast down at one time at a period when the rampart was in ruins. They include a stamped jar-handle with two lines of Hebrew writing, busts and other fragments of statuettes in limestone, fragments of face-masks in pottery, terra-cotta figurines in great variety, etc.

The excavations were temporarily discontinued about the middle of July. Dr. Bliss's second report gives the results obtained from a large pit 80 feet long, 60 feet wide, and, at an average, 26 feet deep.

Foundations of buildings and three monoliths were found, which may have belonged to a circle of stones, venerated before the temple was built. Some small objects and remains of animals came to light.

The objects found in the large clearance pit were comparatively few, aside from the pottery, lying in four strata, and representing different styles, from the most ancient forms of pre-Israelite ware (about 1700 B.C.) down to late Arab patterns. (H. V. HILPRECHT, *S. S. Times*, October 14 and December 23, 1899.)

TARBANEH. — Graves of Roman Times.—The building of the Acre-Damascus Railway has been resumed. Near Tarbaneh, about 31 km. from Haifa, on the slope facing the ruin of Tarbaneh, the engineers discovered single and twin graves, cut out of the rock, and built up in limestone masonry. From the objects found in the graves,—which include a copper coin of Hadrian,—it is probable that they belong to

the second Christian century. (H. V. HILPRECHT, *S. S. Times*, January 13, 1900.)

TELL ZAKARÎYA.—**Excavations of the Palestine Exploration Fund.**—The *Independent*, November 16, 1899, publishes an account of Dr. Bliss's excavations at Tell Zakarîya derived from three numbers of the Quarterly Statement of the Palestine Exploration Fund. The diggings have uncovered a large fortress erected in pre-Roman times, probably by Rehoboam (2 Chron. ii, 9). The hill chosen for the excavation stands almost isolated, rising abruptly for 350 feet above the Vale of Elah. Dr. Bliss found hardly any superficial traces of building, save for a line of stones cropping out from the surface of a raised mound. But the surface was strewn with potsherds, and after a careful study of several hundred small pieces of pottery, he reached the conclusion that this was "an important and ancient site." The summit of the Tell is in the form of a rude triangular plateau, the extreme length of which is about 1000 feet, its breadth 500 feet. The edge suggests that the Tell may have been an artificial mound. Sixteen pits were dug through the different strata of soil and rock, and a careful record kept of the pottery found at the various depths. The results showed five types of pottery in two strata: in the lower stratum, archaic ware; in the upper stratum, Jewish and Phœnician ware, with a few fragments of Greek and a small proportion of Roman ware.

At the southeast corner of the hill remains were found of a building with six towers, which probably belongs to the Jewish period, although it is not improbable that Roman settlers made use of it. About one-half of the area in the interior of the building was excavated down to the rock. The main walls rest on rock, standing in some places 20 feet high. They are $4\frac{1}{2}$ feet thick, and are formed of roughly coursed rubble laid in mud, containing some well-worked stones intermingled with field stones. In general, the masonry of the towers, all of which were later additions, consists of fairly large rubble brought to courses, with well-squared stones at the external angles. These also rest on rock. The bossed stones of the Zakariya Tower are not unlike specimens shown in Dr. Bliss's 'Excavations at Jerusalem,' found on the scarp to the west of the Old Pool. Several cross walls have been found, and in the clearance pits inside the building there were pit-ovens, tanks, vats, a vaulted cistern, and other constructions.

Doors have been discovered, connecting the fortress with two of the towers, but no entrance from the outside has as yet come to light. In construction the fortress lacks symmetry, the walls varying in length from 120 feet to 228 feet. It is possible that the building may have originally been about square before the south wall was destroyed.

It is clear that much débris had accumulated on the Tell before the fortress was built, and that more had accumulated when the towers were added. The nature of the débris indicates that the fortress was pre-Roman, probably Jewish. It was a large fortified enclosure for protecting houses within, and contained a number of isolated dwellings of at least four periods. "The datable objects range from pre-Israelite to late Jewish times, with a small proportion of later objects. It appears, accordingly, that the place was inhabited when Joshua conquered the land, that it was fortified in Jewish times, that it was occupied till a late Jewish period, and that during the Roman period there was a brief occupation, after which it appears to have

been deserted." The site of Tell Zakariya can probably be identified with one of the places mentioned in Chronicles or Joshua. Dr. Bliss suggests Gath; Mr. Macalister thinks of Azekah (Joshua x, 10).

The finds of the season consist of objects in stone, bronze, iron, clay, paste, and glass. The range of pottery includes the period of the Tell-el-Amarna and Tell-el-Hesi tablets. Among the pottery the most valuable discovery was a series of thirteen royal jar-handles, some of which belong to the type found in the Haram enclosure at Jerusalem by Sir Charles Warren. The handles are of rough, dark-red ware, and belonged to large Phoenician jars. On each handle is a cartouche or ellipse, containing in some cases a four-winged, in other cases a two-winged, figure in relief, with a wedge-shaped head. Above and below the figure are two lines of Phoenician writing. On two handles the inscription reads: "Belonging to the King of Hebron," and the use of the word "Hebron" indicates that the earliest date to be assigned to these specimens is the beginning of the Hebrew conquest, and the latest date the establishment of the kingdom by Saul. On another of the handles occurs the inscription, "Belonging to the King of Shocoh." Shocoh is now represented by the ruins of Shuweikeh, some three miles east of Tell Zakariya. Although not mentioned in the list of royal cities in Joshua xii, Shocoh certainly belonged to the Hebrews (cf. Joshua xv, 35; 1 Kings iv, 10; 2 Chronicles xxviii, 18). Another jar-handle bears an inscription which may be translated, "Belonging to the King of Ziph." The discovery of jar-handles of the Jerusalem type with place names upon them proves that the inscriptions on the handles found at Jerusalem refer to places, not to persons, as assumed before. Very likely the true translation would be, "Belonging to the King, Hebron," and "Belonging to the King, Ziph," meaning that these jars contained tribute sent to the king at Jerusalem from Hebron or Ziph.

In *S. S. Times*, September 9, 1899, H. V. Hilprecht gives a similar but more detailed report. On the east side of the fortress was no tower. The fortress was not divided into chambers, but was simply a large enclosure for the protection of the houses and property within.

Among the other objects unearthed, two seal cylinders of an early Babylonian type are of especial interest; a scaraboid made of blue glass, representing a lion hunt; a number of Egyptian scarabs of the eighteenth dynasty, some of them of Syrian workmanship; and a finger-ring of paste, bearing the cartouche of Khu-n-Aten, or Amenophis IV (about 1400 B.C.).

ARABIA

Sabaeen and Himyarite Monuments at Marseilles.—In the museum in the Palais-Borély at Marseilles are the two Phoenician inscriptions found in France, the tariff of sacrifices found at Marseilles in 1845, and the epitaph found at Avignon in 1897. To these have been added thirteen Semitic inscriptions brought from Yemen in 1881. These are published by H. Derenbourg, *R. Arch.* XXXV, 1899, pp. 1-15; 14 cuts. Nearly all are dedications to some deity; several are tombstones.

CYPRUS

EXCAVATIONS IN 1896.—In the *London Times*, November 22, 1899, is a report of a paper read before the Royal Institute of British

Architects by A. S. Murray on his excavations in the neighborhood of Salamis, Cyprus. At Salamis itself no Mycenaean remains were found, but farther inland about one hundred tombs of the Mycenaean age were accidentally discovered. Many objects were assigned by Dr. Murray to about 800 B.C. or earlier. The Hellenic element came in from Asia Minor. Egyptian scarabs with the name of the queen of Amenophis III (about 1450 B.C.) were found. The objects found were numerous and various, throwing light upon the period when the eastern Mediterranean was the scene of constant struggles for the mastery on sea among rival Greek or semi-Greek peoples.

ASIA MINOR

GALATIA. — **Exploration in 1898.** — Inscriptions Nos. 163–256, from the country between Amorium and Lake Tatta, are nearly all epitaphs, pagan, Jewish, or Christian, in more or less barbarous Greek. The name Aurelius appears on almost every stone, in one form or another. There are two dedications to Men and one to the “Four-faced mother,” Cybele, or goddess of the seasons. Sites identified are Harra, Miscamus, Selmea, Pissia (?), Abrostola, Tolistochora.

The gradual Hellenization of the Celtic element, always numerically small, was much more rapid in the cities than in the rural districts. Here the Celts retained their own language and customs until the spread of Christianity, in the fourth and fifth centuries. (J. G. C. ANDERSON, *J.H.S.* XIX, 2, 1899, pp. 280–318, continued from p. 134. See *Am. J. Arch.* 1899, p. 522.)

MILETUS. — **The Excavations begun.** — Freiherr Marschall von Bieberstein, the German Ambassador at Constantinople, has recently “dug the first spade in the soil” at the excavation on the site of the ancient Miletus. The work is to be carried out under the direction of Dr. Wiegand, who labored successfully at the rediscovery of the ancient Priene. (*Athen.* November 11, 1899.)

TERMESSUS. — **Tombs and Inscriptions.** — G. Cousin, ‘Termessos de Pisidie,’ *B.C.H.* XXIII, 1899, pp. 165–192, begins the publication of a series of funerary inscriptions from the street of tombs. The earlier tombs on the right of the way, coming from Yénidjé-khayvé, are cut in the rock, and show no inscriptions. On the other side of the road the tombs are built, and the inscriptions published are from this side.

THRACE

RELIEFS AND INSCRIPTIONS. — *Athen. Mith.* XXIV, 1899, pp. 356–358, contains notes on various minor discoveries in Thrace. Near Αἰμων is a marble relief, showing a female figure with bow and quiver seated on a deer, holding in the left hand a burning torch, in the right a hare by the hind legs. Nearby stands a second woman with a torch in the right hand and a small vase in the left. The dedication is to Artemis. Some distance farther from this village has been found a relief, showing a sacrifice of a bull, and also a small table at which are seated a man and two women; a third woman is approaching. The inscription is a dedication in Latin to *I(ori) O(ptimo) M(aximo) conservatori*. In Tomi there has been found an inscription in hexameters, apparently an epitaph of an official who had been honored by the city.

RUSSIA

FINDS IN SOUTHERN RUSSIA IN 1898.—The following discoveries are reported: At Kertch, Roman houses, black glazed ware of early date, and fragments of black-figured ware; at Kherson, jewellery from a grave of the end of the fourth century B.C.; in Taurida, horse-trappings of the style of the fifth century B.C.; in Saratov and Perma, far up the Volga, articles of Roman times; near the Caucasus, specimens of Ionic art of the sixth century B.C. and black-figured vases, one in the style of Nicosthenes; farther south, barbaric ornaments not later than the sixth century B.C.; bronze articles of the Chalcidian epoch, eighth century; and from Kars, bronze of the third century B.C. (G. KIESERITZKY, *Arch. Anz.* 1899, pp. 56-57.)

Russian Cemeteries and Tumuli.—In *R. Arch.* XXXIV, 1899, pp. 397-406, G. Katcheretz gives, as the fifth of his 'Notes d'archéologie russe,' a description of the ancient cemeteries of Lada and Tomnikov in the province of Tambov. His sixth article under the same title (*R. Arch.* XXXV, 1899, pp. 97-102) gives a summary of an account of excavations by V. Antonovitch, published in the *Materials for Russian Archaeology*, XI, 1893. The region explored lies in southwest Russia, between the Dnieper and the rivers Pripet, Rastavitzta, Teterev, and Ouch. It contains many tumuli of the Drevlians, a peaceful people, with some knowledge of agriculture, carpentry, and some other arts.

BULGARIA

SOFIA.—**Bronze Statuettes.**—In *R. Arch.* XXXV, 1899, pp. 61-69, S. Reinach publishes (cut), as one of 'quelques statuettes de bronze inédites,' a bronze statuette of a mounted Epona found near Kalonguerowo, in the ancient Moesia. This is the first representation of Epona found in Bulgaria. A few Roman coins were found at the same place. A list of monuments relating to Epona is added. Four of these (at Troyes, Tongres, Köngen, and Worms) are published in cuts. Reinach publishes (*ibid.* pp. 70-72; 2 figs.) two other bronze statuettes in Sofia. One is an Athena found in the ruins of the Colonia Ulpia Oescus. The type is that of Reinach's *Répertoire*, II, 280, 2, and 798, 6. The second, found at Hadjolar in Tchirpan (Thrace), represents a nude long-haired youth. It is said that the left hand originally held an animal by its four paws. Probably Dionysus is represented.

GREECE

A NEW ARCHAEOLOGICAL LAW.—On August 8, the new law concerning antiquities was officially announced. Hitherto the law of 1834 was still in force.

Henceforth all antiquities found on private property belong to the State, and the State has the right to dig experimentally on private property, and to remove articles forcibly from such properties if public demands require it. When the experimental excavations lead to any important results, the State can, after paying an indemnity for the whole property, proceed to take it over. Every find of an ancient building must at once be reported by its discoverer or the owner of the estate to the proper official. Besides the General Inspector of Antiquities, twelve others and twelve *epimeletae* are

appointed, and the kingdom is divided into twelve districts. The inspectors are divided into three classes, with various duties, forming an archaeological council with many assistants. The funds required to carry out these proposals will be gathered chiefly from the results of the archaeological lottery, the sale of plaster casts officially made, and entrance money charged for the public collections, which will now be free on Sundays only.

A practical archaeological school is also to be founded. (*Athen.* October 14, 1899.)

ARCHAEOLOGICAL DISCOVERIES IN 1898.—The Athenian Archaeological Society has finished uncovering the Attalus Stoa and the enclosure of the Olympieum at Athens. At Sunium, near the temple, they have found a gallery, propylaea, and a second temple of peculiar plan; at Rhenea, the graves transferred thither from Delos by the Athenians in 426; at Eleusis, a prehistoric cemetery; at Thermon, the remains of the Temple of Apollo, of brick with terra-cotta roof and ornaments. The American excavations at Corinth, by finding Pirene, have established the basis for the topography of the city. The French at Delphi have brought their work to a close with the gymnasium. The English have discovered a Mycenaean castle on Melos. The Germans, besides continuing the work about the Acropolis and the "Theseum" at Athens, have found an Asclepieum at Paros, many inscriptions at Cos; and at Priene, a sanctuary of Egyptian gods and one of Heracles, water-works, a temple of Demeter and Cora, and remains of Byzantine times, but none older than the Hellenistic epoch, so that it seems that the old Ionic Priene was not at this spot. At Ephesus, the Austrians have worked on the theatre (restored and altered in the second century after Christ), and have found many inscriptions. (*A. CONZE, Arch. Anz.* 1899, 2, pp. 54–56.)

CHALCIS AND ERETRIA.—Inscriptions.—In 'Εφ. 'Αρχ. 1899, pp. 133–148, K. Kourouniotes publishes thirty-nine inscriptions from Chalcis and Eretria. A long inscription from Chalcis is in honor of Archenous, son of Charicles, who had been an envoy to the Romans. The date is fixed by mention of the *κουνὸν τῶν Εὐβοιέων* between 196 and 146 B.C. Two fragmentary Eretrian honorary decrees are also published, one of which contains the new name, *Κίκος*. An inscription, apparently Eretrian, gives a new method of dating by two demarchs. It reads: 'Αγαθῇ τύχη. 'Επὶ πολε[μάρχου] | Θεοκλέους τοῦ Ξένω[νος] | δημαρχούντων | [Φ]ιλοφάνου τοῦ 'Αρίστ[ωνος] καὶ | Σωστράτου τοῦ 'Αρίστ[ωνος] | οἷδε ἐνίκων· ἐπὶ ποιητῇ[s] | Δημόδοτος 'Ηρακλείτ[ου] | Φλ.... | ἐν τῷ.... Twenty are simple grave inscriptions. One in characters of the sixth century B.C. is cut in a disk. It reads: Χαιρίων | 'Αθηναῖος | Εὐπατριδῶν | ἐνθάδε κεί[τα]ι. One is metrical: Μάντιν ἀμώμητον Δελφῶν γένος ἐνθάδε Λεῦκον | υἱὸν Σωσμένεος γαῖα χυτὴ κατέχει.

CORINTH.—The Discovery of the Agora.—In the *Nation*, August 24, 1899, R. B. Richardson describes the discovery of the agora at Corinth, giving at the same time a brief account of the previous discovery of the theatre and the fountain Pirene. See also the *Independent*, July 13, 1899. After Pirene was found the discovery of the agora was merely a question of time, and indeed the propylaea described by Pausanias appeared almost at the beginning of the excavations of 1899. The "Old Temple" was then seen to be the temple of Apollo, as its site is that of the temple of Apollo

according to Pausanias, and a fountain house discovered just west of the temple was identified as the fountain of Glaucus.

CRETE. — **Archaeological Notes.** — The National Museum is to be moved from its present quarters in the courtyard of the Greek Cathedral to the old Venetian Palace, which stands near the large mosque in the centre of the town.

In the present museum, however, Professor Luigi Savignoni has been busy for several months on a catalogue which is now practically completed. At Gortyna, Signor de Sanctis has been excavating and working at the inscriptions discovered, but the results apparently have not been remarkable. In the east of the island M. de Marne is reported to have excavated the *prytaneum* of an important town which a fragmentary inscription shows to be Latos Hetera. The site is at Goula, or Khulas, and is marked on Kiepert's map as Lato.

A peasant of Palaeochora, the village on the site of Polyrrhenia, on the west side of the island, told us that he had discovered, a few months ago, a quantity of treasure in a field at the foot of the hill on the north side of the citadel. He had sent everything to Athens, and beyond a few badly worn coins there were no antiquities left in the village. (W. C. F. ANDERSON, *Athen.* October 28, 1899.)

The new government has passed a decree regulating excavations and prohibiting trade in antiquities except within the island. Excavations by private individuals are prohibited.

Two public museums have been established, one in Canea, the other at Heraclaeum. At Canea a museum of casts of Greek sculpture has been established, and it is proposed to found a similar collection at Heraclaeum. (SPYR. P. LAMBROS, *Athen.* August 19, 1899.)

NAXOS. — **A Local Museum.** — F. Hiller v. Gaertringen has founded a museum at Naxos. Among its contents is the base of a statue of Apollo "the Bow-bearer" dedicated by the senate and people. An inscription on a stele of marble mentions the cult of the *νυμφέων μυχίων*. A stele with dedication to Athena was found at the village of Achapsi. Near Lankada a white marble column, some parts of triglyphs, etc., were found, which may have been carried there from the neighboring temple of Athena. (*Berl. Phil. W.* October 14, 1899.)

PAROS. — **Excavations.** — Rubensohn is continuing his excavations. Prehistoric graves and historical inscriptions have been found, but no further fragments of the *Marmor Parium*. (*Berl. Phil. W.* September 2, 1899.) In the spring of 1899 Hiller v. Gaertringen spent some two months at Paros investigating the inscriptions of the island already published. He instituted excavations at three points, where he found only a few fragmentary inscriptions, but discovered parts of several ancient inscribed terra-cotta vases, a wreath of gold, and other ornaments of gold or colored stones. The objects found by Rubensohn are for the most part in the provisionally erected museum. The *Hestia* states that the first room of the museum is devoted to the objects presented by the islanders, the second to inscriptions, the third to works of art in marble and to pottery. (*Berl. Phil. W.* October 14, 1899.) *Athen. Mitth.* XXIV, 1, 1899, pp. 352-353, contains a notice of the continued excavations of Rubensohn. The Asclepieum has been entirely cleared, and the foundations of the temple on the Acropolis

examined. Near these were found remains of houses of prehistoric times. Outside of the ancient city the ancient necropolis has been found, and the later graves have yielded some rich ornaments. These graves were made among the older sarcophagi and so the older remains have been largely destroyed. Still some good monuments of Hellenistic times can be reconstructed, showing a type of sarcophagus hitherto unknown in Greece. The cover is an imitation of the roof of a temple, and seems to have had in the centre the portrait of the deceased. These sarcophagi stood in the open air on a high basis with pilasters at the corners. On a hill near the modern town a *temenos* containing a temple, altars, and other buildings has been discovered, in which Delian divinities seem to have been worshipped.

SIPHNUS AND SYRUS.—**Tombs and Walls.**—In 'Εφ. Ἀρχ. 1899, pp. 73–134 (5 pls.; 42 cuts), Chr. Tsountas describes and discusses the results of his excavations on the islands of Siphnus and Syrus. The two small cemeteries excavated at Siphnus belonged to the same pre-Mycenaean period as those of Paros, Antiparos, and Despotiko (*Am. J. Arch.* 1899, p. 623), the tombs and their contents being like those of the islands mentioned, except that at Siphnus all the sides of the tombs were often built of small rough stones. Two tombs only belong to a later pre-Mycenaean period, to which also the numerous tombs of Syrus are assigned. At Syrus are two extensive cemeteries, but the tombs form small groups as if families or small clans had buried their dead together. The tombs of Syrus are, like those of the other islands, too small to allow the body to lie at full length. They are built of small stones and covered with slabs. These tombs have doorways at the side; but these were of no practical use, as the bodies were let down from above. No doubt the tombs were imitations of houses. They were sometimes rectangular, but more often of irregular shape, frequently with at least one side curved. The contents were not rich, consisting of hand-made pottery, stone vessels and idols, and bronze or copper pins and weapons. The pottery was adorned with incised lines (rarely with an attempted representation of animals), raised lines, and in some of the later specimens painted patterns. The civilization of Syrus shown by the tombs resembles that shown by the tombs of Paros, but is more advanced. Besides graves, remains of early citadels were found at Siphnus and Syrus. The hill at Syrus is naturally inaccessible on three sides. The fourth side was fortified with two walls, the outer of which was a simple wall, 1.00 m. to 1.10 m. thick, while the inner wall was 1.40 m. to 1.60 m. thick and contained five chambers. Within the acropolis were fragments of jars (*pithoi*), and other pottery, as well as many pieces of marble vessels, stone plates, etc. Silver, copper, and lead were found, and also a few stone and clay moulds for casting. The most striking single object found is a band of silver adorned with large rosettes, a quadruped (probably a dog), and a winged creature executed by means of raised dots. The winged creature stands upon a sort of conical base instead of legs and feet, and appears to be a representation of an idol of a type familiar in Mycenaean times. The acropolis at Siphnus has also a double wall extending nearly round the top of the hill. The walls are better built than those of Syrus, the stones being larger, the walls thicker, and the towers square. This acropolis is later than that of Syrus, for the objects found within the walls are of Mycenaean times, but the general similarity of the two is evident.

SUNIUM. — **The Temples of Poseidon and Athena.** — An inscription has been found by Staës at Sunium proving that the beautiful temple hitherto called the temple of Athena is the temple of Poseidon. The temple found near the harbor in the previous excavations (cf. *Am. J. Arch.* 1899, p. 532) shows the irregularities ascribed by Vitruvius, IV, 4, to the temple of Athena. The temple of Poseidon is not mentioned at all by Pausanias, and only incidentally by other ancient writers. The inscription is an honorary decree of the fourth century B.C. containing the provision that it be set up in the temple of Poseidon. (*Berl. Phil. W.* September 2, 1899; cf. *Athen. Mitth.* XXIV, 1899, p. 349.)

THERA. — **Excavations.** — In Thera the excavations of Hiller von Gärtringen have been especially in the neighborhood of the Stoa Basilike, in order to gain a clear idea of the Agora. Remains of public buildings have been found, and also some private houses. The theatre is noteworthy, as its rectangular form recalls the roofed theatres, though the presence of a drain from the orchestra to a cistern proves that it was open to the air. A raised stage was built later, and statues were set up of the parents of Caligula and of Vespasian. The head of the statue of Agrippina has been found. Near the other dedications of Artemidorus of Perge (*I. G. Ins.* III, 421) a number of new rock-cut altars has been found, all provided with verses and some with reliefs, and finally the portrait of Artemidorus in profile, cut from the rock and, like all the rest, of rude workmanship. Artemidorus belonged to the garrison sent to Thera by Ptolemy III. He evidently put an end to factious strife among the Theraeans and was of great service to them. A sketch of his career is given by Hiller v. Gärtringen in *Σαντορινή ἐφημερίς ἑβδομαδικία*. Several of the inscriptions, with dedications to Concord, the Samothracian gods, Fortune and the goddesses of agriculture, Apollo, Zeus, and Poseidon, are published in the brief account of the discovery in *Berl. Phil. W.* October 14, 1899. (Cf. *Athen. Mitth.* XXIV, 1899, pp. 353-355.) Zahn is investigating a necropolis of the "Cyclades civilization," near the temple of the *θεὰ βασίλεια*. Numerous vases from this necropolis are already in the local museum and in private possession. Below the agora of Thera Hiller v. Gärtringen has found an archaic female head and an archaic lion. (*Berl. Phil. W.* October 28, 1899.) Zahn has also investigated some early Theraean dwellings, and excellent specimens of Theraean pottery have been acquired for the local museum. (*Athen. Mitth.* 1899, p. 355.)

THERMON. — **Further Discoveries.** — The excavations of Sotiriades have been continued. The ground on which the temple of Apollo is built, more than 30 m. by 15 m., is entirely formed from the ashes of a great altar, and contains a multitude of charred bones of animals and a considerable number of *πίθοι*. In a building near the temple a number of additional architectural fragments in painted terra-cotta were found, including fragments of metopes with the Lernaean hydra, and other figures. Many inscriptions, almost wholly proxeny decrees, from the second and third centuries B.C. have been found. Two inscriptions built into the stylobate of the temple show that at least the east front was repaired after the destruction by Philip V of Macedon. The temple spring has been discovered, and an inscription has fixed the site of the town of the *Θεστιεῖς* on the mountain now called *Βλοχός*, where the site of Thermon was formerly sought. (*Athen. Mitth.* XXIV, 1899, p. 350.)

VARIOUS MINOR DISCOVERIES. — At **Andros**, the newly formed museum contains, among less important objects, a decree conferring proxyeny upon a Babylonian, Dromon, son of Phanodemus. (*Athen. Mitth.* XXIV, 1899, pp. 351 f.) Near **Colonus**, Kuruniotes has excavated part of a necropolis. Among objects found, a fragmentary *ἐπὶνήτριον* is noteworthy. (*Ibid.* p. 349.) At **Cephalenia**, Cavvadias has found fragments of Mycenaean vases in chamber tombs near Krane. (*Ibid.* pp. 350 f.) Near Agulinitza, in **Elis**, an ancient spring house has been found. (*Ibid.* p. 349.) At **Eretria**, a good relief of Apollo, Leto, and Artemis has been found, and excavations have yielded many important large archaic amphorae. (*Ibid.* p. 355.) In **Thessaly**, near Ἀγιά by *Μαμάργιανη*, two tombs have been opened, containing geometric vases and small iron objects. In one grave was a skeleton with gold and bronze ornaments. (*Ibid.* pp. 355 f.) At **Troezen**, Legrand has resumed excavations, and is said to have determined the position of the city wall, and excavated a sanctuary of Pan and several Roman graves containing gold ornaments. (*Ibid.* p. 349.) From **Thyatira**, ten inscriptions are published, one a dedication to Hadrian, six mortuary, the others short or fragmentary. (*Ibid.* pp. 358–360.) At **Megara**, Dörpfeld has found the water basin of Theagenes, Pausanias, I, 40, 1. (Private letter, December 31, 1899.)

ITALY

AOSTA. — **The Ancient City.** — Recent excavations at Aosta for the foundation of a large building have brought to light considerable remains of the ancient Augusta Praetoria in the northeastern quarter of the ancient town. A drain and remains of streets and buildings have been found. The most important remains are those of the *thermae*. Some of these belong to the early empire, others to a late restoration. A long piece of the principal wall facing the main street has been found, and fragments of the inner walls, particularly three semicircular *exedrae* belonging to the original building; the floors in these rooms are *suspensurae*. One end of the rectangular enclosure was probably an open court, surrounded by dressing-rooms, etc. At one side drains have been found for carrying off water. One of these had been repaired with a slab containing an inscription in honor of Marcus Aurelius, dating 164–166. On the other side of the stone is a part of an earlier inscription, probably of the time of Augustus. Another inscription was discovered, a votive offering to Fortuna. Many marble architectural fragments were found, vase fragments, and sixteen coins of the years 86 to 383 A.D. (A. d'ANDRADE, *Not. Scavi*, April, 1899, pp. 107–124; 6 figs.) The *thermae* are the fourth great public building which has been definitely settled. Aosta was divided by the “*Cardo Maximus*” and the “*Decumanus Maximus*,” and by the four secondary streets running parallel with the *Cardo* and the *Decumanus*, into sixteen *insulae*, one of which was mainly occupied by the amphitheatre, one by the theatre, one by the granaries, and one by the newly discovered *thermae*. (LANCIANI, *Athen.* October 21, 1899.)

ESTE. — **Roman Coins.** — A. Prosdocimi publishes in *Not. Scavi*, 1899, pp. 73–76, a list of Roman coins found in the Villa del Maino-Bojani at Este in 1897. A money-box of red clay (Arretine ware) 100 mm. high and 70 mm. in diameter contained 286 silver coins of various dates: a semi-victoriatus (of ca. 254 B.C.), “consular” coins representing seventy *gentilicia*,

twenty-four coins of Octavianus, and one (imp. XIII) of Augustus Divi f. The same article mentions briefly other discoveries in the same villa,—an ancient road, well paved, with high sidewalks, floors of marble mosaic and brick, house walls, water pipes, etc.

PIACENZA.—**An Inscription.**—On a stone slab in the old chapel of Santa Maria in Cortina, at Piacenza, the records of a local family of some importance have been found. Four members of the family are mentioned,—the father, Lucius Caecilius Flaccus, the mother, Petronia, and two sons, Lucius and Quintus. Father and sons had risen to the highest honors in their native place. The first is styled *quaestor, tribunus*, and curator of the building of the great temple of Jupiter; while of the two sons, one distinguished himself in a legal, one in a military career. It appears from this inscription that Placentia was a *municipium*, not a colony. (LANCIANI, *Athen.* October 21, 1899; cf. GATTI, *Not. Scavi*, 1899, pp. 124 f.)

POMPEII.—**Excavations, December, 1898–May, 1899.**—From December, 1898, to the middle of February, 1899, the work was continued behind the Curiae. Behind the western Curia a peristyle was uncovered belonging to a house, of which a part had already been cleared. See *Not. Scavi*, 1893, p. 35. This peristyle and the rooms about it could be entered from the public passage, which runs from the southern end of the Forum, between the western and central Curiae. In the first part of April the excavation was continued in Reg. V, Ins. IV and V, and numerous small objects were found, including a marble figure of Paris, a bust of a young satyr, a small marble altar, and fourteen bronze coins. On April 18 work was transferred to a point west of the Basilica, south of the ruins of the temple of Augustus. (A. SOGLIANO, *Not. Scavi*, April, 1899, pp. 140–146; 2 figs.)

Excavation was continued in March, 1899, in Ins. IV and V of Reg. V, and many articles of domestic use were found. The only object of note was a small bronze bust of Minerva. (A. SOGLIANO, *Not. Scavi*, March, 1899; 1 fig.)

In May excavation was continued west of the Basilica and in Reg. IV, Ins. V. In the house, "No. 3, Ins. IV, Reg. V," two small cabinets were found. One of these was furnished with a drawer, inside of which were the following objects: eighty-seven silver denarii of the late republic; forty-three imperial denarii, bearing the names of Augustus (1), Nero (1), Galba (2), Otho (1), Vespasian (29), Titus (5), and Domitian (4); fifty-four copper or bronze coins from the time of Augustus (1), Claudius (4), Nero (43), and Vespasian (6). One of these last, a dupondium of Nero, is unedited.

In the same chest of drawers were found an earring of gold, a spoon, and a *simpulum* of silver, a bronze figurine of the "Genius familiaris," two figurines of "Lares domestici," three objects cut in amber, probably children's toys, and several other articles in bronze, glass, bone, and terra-cotta. In the same room a graceful statuette of Venus Anadyomene was found, 0.36 m. high, remarkable for traces of coloring and gilding. (A. SOGLIANO, *Not. Scavi*, May, 1899, pp. 202–208; 2 figs.; June, 1899, pp. 228–239; LANCIANI, *Athen.* October 21, 1899.)

One hundred and nineteen graffiti found in this house, chiefly on the columns of the peristyle, are published by Sogliano. Many of these, dis-

covered when the house was partly excavated in 1888, had already been published by A. Mau, *Röm. Mith.* 1890, pp. 25 f. Nearly all relate to gladiators, and the house was probably used as a gladiatorial school. Later it served another purpose, and to the later occupants are due two graffiti, one containing the name of L. Annaeus Seneca and the other a quotation from the *Aeneid*.

In June, 1899, excavations were continued west of the basilica and in Reg. VI, Ins. XV, Nos. 14, 22, and 23.

On May 23, 1898, work was resumed in the district of Civita, north of Pompeii. (Cf. *Not. Scavi*, 1898, pp. 494 f.) Several rooms were uncovered, belonging to a house adjoining the one already excavated. (Plan.) This is not then an isolated villa, but a suburb of Pompeii, probably the *pagus Augustus Felix suburbanus*.

ROME.—Excavations in the Forum.—The larger part of *Not. Scavi* for May, 1899, is devoted to an official report on recent discoveries in the Roman Forum. On pp. 151–158 (18 figs.), Giacomo Boni describes briefly the result of excavations near the Arch of Severus. He describes the tufa platform below the *lapis niger*, the two bases, the inscribed cippus, and the lesser objects found here.

On pp. 159–169, G. F. Gamurrini discusses palaeographically the inscription of the tufa cippus. The sacrificial remains found about it are surely as early as the first half of the sixth century B.C. The manner and form of the writing prove the same period for the inscription, which is *βουστροφῆδόν*, and in Greek letters of the sort used in the part of Etruria nearest Rome, showing that Rome received the alphabet from Etruria, and especially from Caere.

After a few brief observations by Giacomo Cortese (p. 170), Luigi Ceci discusses word by word the meaning of the inscription from a linguistic point of view. (pp. 171–200; see also *B. Com. Roma*, 1899, pp. 130 ff.) He completes the inscription, starting with the supposition that it is a *Lex Sacra* of Numa, and adds an explanation.

In discussing the age of the inscription, he calls attention to the *d* of *capied*, which had not yet been changed to *t*, to the locative plurals *sakros* and *eidiasias*, and to a local peculiarity, the use of *h* for *f*; also to the large proportion of words which have disappeared entirely from the Latin language as we have hitherto known it. The inscription is assigned to the seventh century B.C. The mutilation of the stone is due to the Gallic invasion. The inscription is probably not metrical, but has the characteristics of rhythmic prose. A summary of the report is given by R. Lanciani, *Athen.* July 22, 1899. In *Berl. Phil. W.* August 5, 1899, Chr. Hülsen describes, with a plan and facsimile, the discovery of the archaic inscription under the black pavement.

The discoveries in the Forum are briefly described by G. Gatti, *Not. Scavi*, 1899, pp. 77–87, 127–139, by Thédenat, *C. R. Acad. Ins.* 1899, pp. 325–326, 341–342, and by L. Duchesne, *ibid.* pp. 339–341. Thomas Ashby, Jr., *Cl. R.* 1899, pp. 321–322, gives a brief summary of the work up to June. R. Lanciani, *Athen.* July 22, September 2 and 30, October 21, December 2 and 16, 1899, and January 13, 1900, St. Clair Baddeley, *Athen.* July 8 and September 16, 1899, and Richard Norton, *Nation*, July 27, 1899 (cf. *ibid.* November 30), give brief reports.

In *Berl. Phil. W.* December 2, 1899, Chr. Hülsen describes the excavations on the site of the Basilica Aemilia, and *ibid.* December 9, those of the Regia, the House of the Vestals, the Clivus Capitolinus, the neighborhood of the Basilica of Constantine, and the Temple of Romulus, adding brief mention of the restoration of columns and bases in the Forum. (See also G. Boni, *Not. Scavi*, June, 1899, pp. 220-223.)

In *C. R. Acad. Insc.* 1899, pp. 459-463, Abbé Thédénat describes excavations in the Forum, with especial attention to this inscription:

[*L. Cae*]sari Aug[us]ti f. Divi n. | [*prin*]cipi iuventu[ti]s. cos. desig. | [*cum*]isset ann. nat. xiiii. Aug. | Senatus [*populusque Romanus*?]

This was found with architectural fragments near the Temple of Antoninus and Faustina. It may have been part of the portico of Lucius and Gaius (Suetonius, *August.* 29). The letters are those of the time of Augustus. (Cf. *B. Com. Roma*, 1899, p. 141.)

The following notes on excavations in the Forum since July 1, 1899, are from a letter from Samuel Ball Platner, dated December 30, 1899.

The houses between S. Lorenzo in Miranda (*templum divae Faustinae*) and S. Adriano (the Curia) have been torn down and the whole space occupied by the **Basilica Aemilia** uncovered. The appearance of the Vicus Tuscus has been changed by the removal of the basalt pavement of the Imperial period for most of the distance along the short side of the Basilica Julia, and the discovery, 3 feet below the old pavement, of a piece of pavement, about 45 feet long, made of small pieces of brick. The west side of the podium of the **Temple of Castor** has been entirely uncovered down to the massive lower foundations of the spur walls on which stood the great columns. A sewer under the Vicus Jugarius has been cleared out, and a shaft at the west end of the Basilica Julia shows deep substructures beneath. Directly in front of the Temple of Saturn an old channel of tufa was found running back under the present road. Between this and the pronaos of the Temple of Concord a whole network of ancient channels and foundation walls of tufa has been found.

The southeastern corner of the foundations of the pronaos of the **Temple of Concord** has been uncovered, and close by it is visible the bare tufa of the Capitoline hill. Between this slope of the hill and the back of the so-called **Graecostasis** the excavations have disclosed a series of travertine steps which lead up to the top of this curious structure, and originally extended across its whole length.

Further digging around the ancient tufa walls at the southwest corner of the **Arch of Severus** has shown that they extend deep below the present level of the ground, and run at different angles, but they cannot be identified. In front of the Arch of Severus begins the line along which the main work of the past months has been done. The whole front wall of San Adriano, the Curia of Diocletian, and the Comitium are now in sight. The **Comitium** is paved with blocks of travertine and extends to and around the *lapis niger*, which, although on the same level, is protected on at least two sides by a sort of curb. This pavement of the Comitium extends out to a point directly opposite the middle of the Arch of Severus, and ends just beyond the *lapis niger* with a curved front wall, which is itself built over an older tufa pavement. Further back it also rests upon older structures. Part of the Comitium had evidently been built over at a late period in something

the same way as the Basilica Aemilia. Some of the stones used in this later building are slabs of marble and bases containing honorary inscriptions to Constantine, Constantius, and Theodosius. At least two other similar pedestals stand on the pavement, one dedicated to Constantine, the other to Mars and Romulus and Remus. The holes in the top of this latter show that it was the pedestal for a statue of bronze, possibly of the Capitoline Wolf. The dedication appears to have taken place under Maxentius. In the front wall of the Curia, just below the former level of the ground, are several *loculi* on either side of the door. In one of them there still lies the complete skeleton of a human being, doubtless that of some dignitary who was buried in the outer instead of the inner wall of the building after it became a church. The filling up of the old doorway is plainly visible, and a few bits of the marble lining of the plinth are still *in situ*. A few fragments of marble decorations were found at the foot of the wall, among them the capital of a pilaster of composite style, though broken in many pieces. The **Basilica Aemilia** is now seen, as was generally supposed to be the case, to have corresponded in the main to the Basilica Julia; but it was not so deep in proportion to its length. The travertine foundations of eleven of the front columns can be traced, and portions of the marble steps running along this front are *in situ*. Some parts of the rear walls are also still standing. They are built of excellent *opus quadratum* of the time of Augustus, and correspond with those in the rear of the Basilica Julia. The marble pavement at the entrance to the basilica is covered with *tabulae lusoriae*, such as are so numerous in the Basilica Julia. The Basilica Aemilia was evidently destroyed in the fifth century, when some sort of rebuilding took place in the interior. Somewhat later another structure seems to have been built across the hall, and over this later mediaeval walls. The different sorts of tufa used at the different periods can be distinguished, and the complex of walls may prove useful in studying the building methods of the latest period of the Empire and the early Middle Ages. For the threshold of one of the later buildings, a block of marble was used which formed a part of the second table of the *Fasti Capitolini* on the Regia. Most of the inscribed face of this block is cut away, but six inches of the original surface is left, on which are found three lines of each column of the *Fasti*. In one column are the names of the magistrates of 380 B.C., and in the other those of 331 B.C.

The work has shown that the whole Forum was crossed in every direction by a network of sewers and drains. One large sewer comes down from the Velia along the northern edge of the Forum, and other smaller ones empty into that and into the Cloaca Maxima.

The passage between the Basilica of Constantine and the church of SS. Cosmo e Damiano has been opened, and the space back of the rear wall on which was affixed the marble plan of the city, has been cleared for a distance of about 50 feet. Portions of a beautiful pavement of square slabs of colored marble have been found here, but no more fragments of the marble plan.

In front of the **Basilica of Constantine**, the basalt pavement of the road has been taken up and an older pavement of the **Sacra Via** found at a depth of 6 feet beneath the later. Under the church of S. Francesca Romana, a bit of pavement, still earlier and deeper, has been found. Between the

Basilica and the pavement, very late imperial and mediaeval walls are found running in various directions. Just across the road are the concrete foundations of a large structure, perhaps the Porticus Margaritaria, which was built at such an angle that it crossed the pavement itself at the upper end. Two more broken columns of porphyry, belonging to the façade of the Basilica, have been found.

The remains of the **Domus Publica** have been excavated so far as possible, and previous conclusions confirmed. The **Atrium Vestae** was built over part of this house, and still later structures were erected upon its foundations on the north side near the line of the Sacra Via. Of the early building many more walls of tufa, *opus quadratum*, and *opus reticulatum* have come to light, and travertine steps and bases of columns. Several remnants of pavements of herring-bone brick and mosaic have also been found.

Within the **Atrium Vestae** the excavations have been carried on in several spots beneath the previous level, and in every case earlier walls, pavements, and channels for water with drains have been found. Along the southern edge of the peristyle, a pavement of herring-bone brick is found beneath the later pavement made of small bits of basalt. The earth in the rooms south of the peristyle has been cleared out, and in two of them, about 2 feet below the former level, were found pavements of colored marbles. In the second room, starting from S. Maria Liberatrice, was found in a drain what had been a sack filled with gold coins. There were 397 in all, and of seven varieties. More than three hundred belonged to the Emperor Anthemius (died 472 A.D.), eleven to his wife, the Empress Eufemia, one to Constantius II (335-361), and the rest to the Emperors Marcianus, Livius Severus, Valentinian III, and Leo I (457-474). In one of the rooms to the northeast of the so-called Tablinum is an old altar of tufa with stucco facing, surrounded by a low tufa wall. This may have belonged to the earlier Regia, as it has an orientation different from that of the Atrium.

The **Regia** has been completely excavated. All that was previously visible was part of the line of the cross walls. As it now presents itself to our view, it fills the space between the line of the Sacra Via and the path which ran along the north of the Domus Publica. It is plain that after these buildings took their later shape, there was no room for a street between the Regia and the Atrium Vestae. The Regia in its present form is very irregular, and it would be quite impossible to describe the crossing and recrossing of the walls of different epochs and rebuildings without an elaborate plan.

At the eastern end parts of the marble steps of the entrance are to be seen. On the podium of the building are two things of especial interest. One is a raised platform of tufa about 15 by 11 feet, on which stands a round substructure of tufa about 6 feet in diameter and 1 foot in height. This is supposed by some to be the *Sacrarium Martis*. To the right of this is a deep well, or rather cistern or *tholus*, lined with cement, which seems to have been a repository for grain and has been identified with the *Sacrarium* of Ops Consiva which was in the Regia. In this *tholus* were found many fragments of pottery, eighty *stili*, and one wooden writing tablet. These instruments probably came from some *schola* for the subordinate officials of the College of Pontiffs, evidence for the existence of which is found by

Hülsen in an inscription discovered in the Regia, which, put together with another piece found in 1546, reads as follows :

in HONOREM DOMVS AVGVSTAE KALATORES PONTIFICVM ET FLAMINVM

This probably formed the entrance of a small *schola* built against the south-west corner of the Regia. Not even a fragment of the *Fasti* has been found during these latest excavations.

Several deep wells stand inside or close beside the building, especially noticeable being one with well-preserved curb of peperino directly in the path between the southwestern corner of the Regia and the walls of the Domus Publica. In the curb of one of these wells is a block of marble with the inscription REGIA, in letters of the second century B.C. The Arch of Augustus has been restored to the extent of putting in place, with the help of brick work, those pieces of the arch which lay near by.

A Roman House under the Church of S. Cecilia.—The excavations under S. Cecilia found a starting point in the remains of a bathing apartment in and round the chapel of the saint at the end of the right aisle, and it was seen at once that this formed part of a palace, the remains of which extend even beyond the area of the church. The walls are of brickwork of the later half of the second century, with restorations of the third. The pavements are of mosaic in chiaroscuro, and the house is rich in columns and other marble decorations. Remains of a bath and heating apparatus are visible. Two marble sarcophagi have also been unearthed (one with the Calydonian Hunt in full relief), used again for Christian burial, probably at the time of Paschal I, 821 A.D., who rebuilt the old oratory of Urban I and gave it the present basilican type. Among the materials collected for the intended reconstruction is one of the cippi of the Pomerium. The inscription is couched in the same terms as *C.I.L.* VI, No. 1232, and explains how the emperors Vespasian and Titus *auctis populi Romani finibus* enlarged at the same time the limits of the city in the year of their censorship 74 A.D. (R. LANCIANI, *Athen.* January 13, 1900.)

Epitaphs.—In and near the new church of the Carmelites on the Corso d' Italia, between the via Salaria Vetus and the Salaria Nova, about 150 epitaphs have been found. Some of these, of the usual stereotyped forms, are published in *B. Com. Roma*, 1899, pp. 154–167. A few others are commented upon by Lanciani in *Athen.* October 21, 1899.

Various Archaeological Notes.—In *Not. Scavi*, 1899, pp. 127–139, 200–202, G. Gatti mentions several minor discoveries in Rome, besides describing the excavations in the Forum. *Il Popolo Romano*, December 31, 1899, announces that the church of S. Maria Liberatrice has been expropriated for the excavations of the Forum. In *Not. Scavi*, 1899, pp. 223–227, D. Vaglieri publishes a military diploma found in the bed of the Tiber. The soldier belonged to the cohort *I Flavia Canathenorum* of the army of Rhaetia. The date is 162 A.D. A portion of the pavement of the Via Clodia has been laid bare about three miles from the Porta del Popolo. It is lined with sepulchral monuments. Between the second and third milestones of the Via Labicana remains of a circular tomb of the Sergia family have been found. It probably dates from the time of Augustus. Another tomb, inscribed with the name of Andia Petronia, has been found in the Campo Verano. (LANCIANI, *Athen.* September 30, 1899.) Part of an ancient building with some

mosaic pavement has been found in laying the foundations of the new "Polyclinic" on the east side of the Praetorian camp. Part of an ancient road and remains of a columbarium have been found at the same place. (LANCIANI, *Athen.* September 30 and October 21, 1899.) A marble sarcophagus, ornamented with festoons and cupids and inscribed with the name of Zosimus, son of Zosimus and Chryseis, has been found on the Via Ostiensis, not far from the tomb of St. Paul. (LANCIANI, *Athen.* October 21, 1899.)

The Museum in the Villa di Papa Giulio. — In *R. Arch.* XXXV, 1899, pp. 332-337, is a French translation of an article in the Munich *Allgemeine Zeitung*, Beilage, July 19, criticising the report of the commission to investigate Helbig's charges against the management of the museum in the Villa di Papa Giulio, and showing that the excavations to which the museum owes its formation were ill conducted and incompletely and falsely reported. Incidentally the management of other Italian museums is criticised. The *Berl. Phil. W.* July 22, 1899, contains an article by F. v. Duhn on the same subject. The commission, consisting of the president, Bonasi, and two specialists, Pigorini and Ghirardini, investigated Helbig's charges, which were four in number: (1) The excavations were not conducted by the government and were not properly watched; (2) In Vol. IV of the *Monumenti Antichi* and the accompanying atlas the plans of the groups of graves are incorrect; (3) In the arrangement of articles in the museum objects from one grave were often interchanged with those from another, so that, e.g. objects from *tombe a fossa* were assigned to *tombe a pozze* and *vice versa*, and *tombe a fossa* are credited with objects found in *tombe a camera*; (4) Important objects from some tombs were removed and others put in their places. The first charge is shown to be justified, but the injury to science is believed to be comparatively slight, as the chief excavator, Faneto Benedetti, is a trustworthy man. The second charge is found to be on the whole unjustified, although some irregularities appear. The third charge is hard to disprove, for the lists, with the exception of the sale-inventory, were written after the objects were brought to the museum; but it is found to be on the whole unjustified, except, perhaps, as regards grave XXXIX. The fourth charge is refuted *in toto*. These charges refer to the objects from Narce, and the commission remarks that the objects from Falerii, Corchiano, etc., in connection with which there are no irregularities, are more important than those from Narce. In general, matters are not so bad as Helbig represented, but the commission recommends certain changes in administration. A somewhat personal attack upon Helbig is added, and the wish is expressed that foreigners be prevented from excavating. The French School is accused of having excavated at Conca, but the accusation has been met by an official denial. The report of the commission, 'Inchiesta sul Museo di Villa Giulia,' appears as a supplement to the *Bullettino Ufficiale* of the Italian Ministry of Education of July 10.

TARANTO. — Early Pottery. — At "Scoglio del Tonno," near Taranto, three layers of archaic remains have been found. The upper one contains local pottery, earlier than the "Proto-Corinthian," with simple geometrical ornamentation. The middle layer, belonging to the period of the *terramare*, contains traces of habitations on palisades and the characteristic utensils of the inhabitants of the *terramare*, showing that their civilization was not

confined to Northern Italy. In the lowest layer are neolithic implements. (R. LANCIANI, citing Q. QUAGLIATI, *Athen.* September 2, 1899.)

TURIN.—**Inscriptions.**—The discovery of two inscriptions near the Palazzo Reale at Turin is recorded by A. d'Andrade, *Not. Scavi*, June, 1899, pp. 209-213; 6 figs. They are discussed by A. Taramelli, *ibid.* pp. 213-216. In the first,—which possibly comes from the Roman theatre, remains of which were found from August to October, 1899,—it is important to note the presence at Augusta Taurinorum of members of the royal family of Segusio, and the connection that must have existed between the two cities. The inscription is in two lines, of which two fragments that belong together form the end. Donnus and Cottius are mentioned, but whether the latter is the son or grandson of the first Cottius cannot be determined. The inscription is not later than Claudius. In the second inscription, which is an epitaph, L. Flavius Celer is *turarius* and also *sevir Augustalis*. The writer suggests that the business of the *turarius* had a certain religious character.

DISCOVERIES IN SICILY AND SOUTHERN ITALY.—Professor Orsi has recognized, as the site of the ancient **Helorus**, a small hill in the district of **Noto**, between the coast and the left bank of the Tellaro. Remains of the wall have been found, probably of the second half of the fifth century B.C. Two groups of tombs have been brought to light, an early one and a later one of the fourth and third centuries B.C. This second group surrounds the large column called Piliere or Pizzuta, which is found to contain a sepulchral chamber of the third century B.C. (*Rend. Acc. Lincei*, VIII, fasc. 3-4, p. 149; P. ORSI, *Not. Scavi*, 1899, pp. 241-244; 1 fig.) At **Ragusa**, Orsi has found the necropolis of Hybla Heraea. Twenty-four tombs containing Greek pottery of, for the most part, the sixth century B.C., have been opened. Remains of a building have been found. (*Il Popolo Romano*, December 27, 1899.) Under the title 'Funde und Forschungen,' E. Petersen gives in *Röm. Mitth.* 1899, pp. 163-192 (6 figs.), an account of discoveries and investigations at Sicily and Southern Italy by Orsi, Colini, and others. P. Orsi, in *B. Paletn. It.* 1899, Nos. 1-3, p. 52, warns archaeologists against bronzes of Southern Italy, offered at Catania as products of secret excavations in Sicily.

ENEOLITHIC TOMBS IN NORTHERN ITALY.—In the province of Brescia two tombs of the eneolithic period have been discovered, containing objects of stone, copper, and terra-cotta. Another tomb of the eneolithic period, with similar equipment, has been found on the right bank of the Gambera, in the district of Cremona. This tomb intact and the objects found in the two others have been sent to the Prehistoric Museum in Rome. (G. A. COLINI, *B. Paletn. It.* 1899, Nos. 1-3, pp. 28-32; 4 pls.)

MISCELLANEOUS NOTES.—At **Càrpena**, near Forlì, a deposit of fifty-nine coins of the later republic, hidden perhaps when Sulla returned to Italy, has been found. (*Not. Scavi*, 1899, pp. 126 f.; *Athen.* October 21, 1899.) At **Contigliano** a large deposit has been found, and 647 silver denarii have been rescued from the hands of the discoverers. They belong to about one hundred consular families. (*Not. Scavi*, 1899, pp. 146 f.; *Athen.* October 21, 1899.) At **Cori**, part of an ancient reservoir has been found. (*Not. Scavi*, 1899, pp. 202 f.) Near **Fabiano**, in Umbria, an early tomb was found, containing vases of bronze and clay and fragments of a chariot similar to that from the "tomba del duce" at Vetulonia. (*Il Popolo*

Romano, December 27, 1899.) At **Fano**, in the former convent of S. Filippo, remains of a public edifice and statues of members of the imperial family of the first century have been found. Various antiquities, including some unpublished inscriptions, are collected in the Palazzo Malatestiano. (*Rend. Acc. Lincei*, VIII, p. 97; *Athen.* December 2, 1899.) At **Fossambrone** and the neighborhood, various terra-cottas and other objects have been found, and a museum has been formed in the public library. (*Rend. Acc. Lincei*, VIII, p. 98.) In **Forli** (at Vecchiazano) a Roman tile, stamped Q. ALB~~III~~, in letters of the first century of the Empire, has been found. (*Not. Scavi*, 1899, p. 217.) A milestone of the Via Appia, bearing the number LIII has been discovered in the abbey of **Fossanova**. (*Not. Scavi*, 1899, p. 102.) At **Gioia dei Marsi** nearly a thousand coins were found, but most of them have disappeared. Some four hundred, mostly common silver denarii, have been recovered. (*Not. Scavi*, 1899, pp. 146 f.; *Athen.* October 21, 1899.) At **Marano**, near Naples, a mosaic representing a wrestling match and a sarcophagus with Tritons, Nereids, and Cupids have been found. (*Not. Scavi*, 1899, pp. 140 f.) A fragment of a lamp, with Cupids trying to lift the club of Hercules and the inscription *adiuvate sodales*, has come to light. (*Not. Scavi*, 1899, pp. 76 f.) A sepulchral inscription of a magistrate of Beneventum has been found at **Paduli**. (*Not. Scavi*, 1899, pp. 149 f.) At **Prezza**, in the district of the Paeligni, a *pitheos* with the inscription PCXXIX has been found. Some ancient remains have also been found near **Cocullo**. (*Not. Scavi*, 1899, pp. 239 f.) Etruscan tombs of the second century B.C. and earlier have been found at **Sinalunga**. (*Not. Scavi*, 1899, pp. 217-220.) At **Sulmona** tombs, walls, and a fragment of an inscription in the dialect of the Paeligni have been found. (*Rend. Acc. Lincei*, VIII, p. 148. See *Not. Scavi*, 1899, p. 148.) A fragmentary inscription, a dedication to Septimius Severus, dated 212 A.D., has been found at **Teramo**. (*Il Popolo Romano*, November 20 and December 27, 1899.) At **Terni** ruins of an ancient building, some terra-cotta vases, and a brick stamp were found some years ago. (*Not. Scavi*, 1899, p. 76.) Three sarcophagi of great value have been discovered near **Velletri**. (*Il Popolo Romano*, November 19, 1899.) In *Arch. Anz.* 1899, 2, pp. 59-66, H. Graeven gives a summary of discoveries in Italy in 1898, calling attention to the reasons for attaching importance to some of them.

SPAIN

CORONADA.—**Bronze Pot.**—A bronze pot (godet), found in 1884 in a Roman mine at Coronada in the province of Huelva, is published and discussed by Arthur Engel, *Revue des Études Anciennes*, 1899, pp. 249-252 (cut). The pot is inscribed L · VIBI · AMANTI · P · XIIIS ·; i.e. the maker's name and the weight, 12½ pounds. The pot weighs 3367 grammes. This gives a pound of 269.6 grammes, a weight hitherto unknown. The mines of the province of Huelva have furnished numerous relics of antiquity, now preserved in various places. Tombs have also been opened at Coronada. The ancient tombs of Spain are of many different kinds, and have not been thoroughly classified.

VILLAFRANCA DE LOS BARROS.—**An Inscription on a Brick.**—An inscription cut in rude letters on a brick before it was burnt was recently found at Villafranca de los Barros, and published by the Marquis

de Monsalud, *B. Ac. Hist.* XXXIV, 1899, pp. 416 ff. It is republished with a commentary by Emil Hübner, *Revue des Études Anciennes*, 1899, pp. 253-256. It reads: *Maximus Nigrino. | Et hoc fuit providentia | actoris, ut puellam, qu[e] iam | feto tollerat, mitteres | illam, ac tale labore ut | mancipius dominicus | periret, qui tam magno | labori factus fuerat, | et hoc Maxima fecit | Trofimiani fota; et castiga illum: quasi ex omni | closus est. . .* The writer was probably a slave or a freedman. The writing is a mixture of capitals, uncials, and a running hand. The sense is obscure. The probable date is not far from 200 A.D.

MADRID.—**The Ass of Silenus.**—In the *Revue des Études Anciennes*, pp. 245-248 (pl.; 2 figs.), Pierre Paris publishes a bronze belonging to Don Antonio Vives at Madrid. Two similar bronzes are published in *De' bronzi di Ercolano e contorni*, Naples, 1767, pp. 83 and 221, Vols. XXI, XXII, LXV, LXVI. The Madrid bronze seems to be the best. An ass's head is represented, with a broad collar and a wreath of ivy. This is no common ass, but a member of the thiasus of Dionysus, the ass of Silenus. Like his master, he is a little tipsy. The bronze was originally part of a chair or *bisellium*.

PORTUGAL

EVORA (EBORA OR MUNICIPIUM LIBERALITAS JULIA).—**Inscription.**—The following dedicatory inscription contains the name of a strange divinity, Runesus Cesium:

Sanct(o) Runeso Cesio sacrum G(aius) Lic[inus] Quinctinu[s] Bals(ensis).

As *run-* may be Celtic, with the force "mysterious," and the suffix appears in other proper names in the south of Portugal, — *e.g.* Lobesus, — and as Cesium may be for Gaesius, cf. Latin *gaesum* of Celtic origin, meaning "dart," the Runesus Cesium may mean "the god armed with a dart." Celtic influence in the religion of the Roman epoch in Lusitania is then established. (*B. M. Soc. Ant. Fr.* 1899, p. 286.)

FRANCE

AGEN.—**Relief representing Apollo.**—In *B. M. Soc. Ant. Fr.* 1899, pp. 249-254, pl., a relief representing Apollo is published by Tholin. The god is nude, holds a bow in his left hand, and wears a quiver over his right shoulder. The right forearm and hand are gone. At the god's right stands a bird, perhaps a raven. The block is 0.90 m. high by 0.60 m. wide. The work is good and is to be assigned to an early date. Near the relief were found a fragment of a cornice, some bronze objects, and a fragment of stone with traces of sculptured feathers. The building to which it belonged was probably destroyed in the first invasion of the barbarians, 276 A.D.

BEIRE-LE-CHÂTEL.—**Altar to the Deae Matres.**—In *B. M. Soc. Ant. Fr.* 1898, pp. 316-319, Abbé Morillot publishes the inscription of an altar found near the temple at Beire-le-châtel. It reads: *Dis M[atribu]s Vint[ed]o | v[otum] s[oluit] l[ibens] m[erito]*. Inscriptions to the Deae Matres are rare in Burgundy. Remains of an aedicula were found near the altar.

BORDEAUX.—**Moulds for Imitating Coins.**—In 1884, apparently, remains of an ancient pottery were found at Bordeaux. Among other things were terra-cotta moulds for casting imitations of coins. Four of the

types represent Julia Domna, Septimius Severus or Caracalla, Caracalla, Gordianus III, Hercules. They appear to belong to the fourth century after Christ. (LAFAYE, *B. M. Soc. Ant. Fr.* 1899, pp. 195-197.)

BOULOGNE-SUR-MER. — **Latin Inscriptions.** — Héron de Villefosse publishes in *B. Soc. Ant. Fr.* 1898, pp. 409-412, two inscriptions from the Roman cemetery of Vieil-Atre at Boulogne. The first reads: *D.[M.] | P. Vongidiai | Saturninai | vixit annis XX | Valerius Natalis uxori pi^ontissimai | bene merenti | [fe]cit*. The name *Vongidia* is unknown, or at least very uncommon. That a woman has a *praenomen* is unusual, but not unexampled. The second inscription reads: *D. M. Exsupere | annorum XXX. Mater proqur(avit)*.

MONTEREAU. — **Statuette of Mercury.** — A bronze statuette of Mercury, found in the Seine near Montereau in February, 1899, is published by Paul Quesvers, *B. M. Soc. Ant. Fr.* 1899, pp. 201-203; pl. It is of very rough workmanship. The god holds the remains of his caduceus in his right hand, a purse in his left. He wears winged shoes and has wings on his hat. The whole effect of the figure is such as to remind one of a mediaeval devil.

PARIS. — **Acquisitions of the Louvre in 1898.** — A list of the acquisitions of the department of Greek and Roman Antiquities in the Louvre in 1898 is published in *B. Soc. Ant. Fr.* 1898, pp. 415-428. It enumerates thirteen statues and busts of marble, seven marble reliefs, seventeen inscriptions and various objects of marble, five statues and busts of stone, one relief and two inscriptions in stone, thirty-one bronzes, nine objects of gold, seven objects of silver, six intaglios and a fish in hard stone, twenty-nine glass objects, three terra-cotta fragments, a large number of small objects of ivory, bone, and lead. Perhaps the most important are a head of a marble Roman replica of the Athena Parthenos from near Civita Vecchia (*Not. Scavi*, 1895, p. 195; *Röm. Mitth.* 1895, p. 92), the inscription relating to the reconstruction of a temple by the women of Tanagra (*R. Ét. Gr.* 1899, pp. 53-115), a gold ornament from Camirus (*Catal. Tyszkiewicz*, No. 203), and four pieces of silverware from Carthage (not from Torre del Greco, *Catal. Tyszkiewicz*, Nos. 226-229). (Cf. *Arch. Anz.* 1899, 3, pp. 147-153.)

An Oriental Mould. — In *B. Soc. Ant. Fr.* 1898, pp. 407-410, E. Babalon publishes (cut) and discusses a serpentine mould recently acquired by the Cabinet des Médailles. It represents a man and a woman, between whom is an ibex standing on his hind legs. Both figures wear a sort of striped skirt. The man has a pointed hat, the woman a head-dress more nearly in the shape of a crescent. Both hold their hands on their breasts. The man holds over his right shoulder a sceptre adorned with what may be a large bird. Two other moulds, one in the Louvre, the other in the Cabinet des Médailles, show marked similarity to this. The work is probably Hittite.

SAINT-MORÉ (YONNE). — **The Camp of Chora.** — In *R. Arch.* XXXV, 1899, pp. 218-225 (2 cuts), Abbé Fr. Poulaine describes the camp of Chora at Saint-Moré. Here is an early wall, and objects of all periods from the neolithic to Merovingian times. Although never a large town, Chora was a fortification of no slight importance in Gallo-Roman times.

SOISSONS. — **Gallo-Roman Graves.** — At *Les Longues-Raies*, in the territory of Soissons, many graves were opened in 1897 and 1898. No certain signs of cremation were discovered, though three small stone urns in

the shape of rectangular houses may have been intended to hold ashes. In some graves were many objects buried with the dead, in others nothing whatever. Pottery, glassware, bronze pins and utensils, and Roman coins were found. These last make it appear that the graves belong to the first two centuries after Christ. (O. VAUVILLÉ, *B. M. Soc. Ant. Fr.* 1899, pp. 163-168.)

AUSTRIA-HUNGARY

LAUREGNO. — Copper Ingots. — In *B. Paletn. It.* 1899, pp. 37-42, L. de Campi announces the discovery of four ancient ingots of copper at Lauregno, in the district of Trent, and argues that such collections were a sort of buried treasure, which in some cases had a religious character.

OSSERO. — Roman Coins. — A number of coins, — 475 in all, — ranging from the year 254 B.C. to the year 4 B.C., was lately discovered at Ossero, in the Adriatic. (*Athen.* November 25, 1899.)

PETTAU. — Mithras Inscriptions. — In *Jh. Oesterr. Arch. I.* II, 1899, Beiblatt, pp. 97-102, W. Gurlitt continues his preliminary report of excavations at Pettau. He publishes an inscription: *Invict(o) Mithrae | et transitu Dei | Theodorus p(ublici) p(ortorii), | scrut(ator) stat(ionis) Poet(ovionensis), | ex visu.* The expression *transitus Dei* seems to mean that the god is thought of as one who passes by, from darkness to light, or from the lower to the upper world. Other inscriptions from the mithraeum are discussed.

POLA, TRIESTE, PERASTO. — Greek Sepulchral Inscriptions. — In *Jh. Oesterr. Arch. I.* II, 1899, p. 102, R. Weisshäupl publishes a late inscription on a Lycian sarcophagus in Pola. *Ibid.* pp. 103-105, P. Sticotti publishes a stele from Smyrna in Trieste and two stelae built into the town hall at Perasto, whither they were brought about a century ago from Asia Minor.

GERMANY

THE GERMAN ARCHAEOLOGICAL INSTITUTE. — The annual report of the Institute was presented at the general meeting of the Berlin Academy of Sciences, June 8, 1899. The publications of the Institute had progressed satisfactorily. The Roman and Athenian branches had carried on their meetings, excursions, and researches with success. Excavations had been undertaken at various sites.

ARCHAEOLOGY FOR GYMNASIUM INSTRUCTORS. — Vacation courses for gymnasium instructors were held in 1899 in Berlin, Munich, and Dresden at Easter, and in Bonn at Whitsuntide. An account of these courses, with a list of the numerous and various subjects treated, is contained in *Arch. Anz.* 1899, pp. 96-98.

BERLIN. — Acquisitions of Ancient Coins. — The Berlin Museum has recently acquired 102 Greek and 77 Roman coins. Noteworthy Greek coins are: a gold stater of Demetrius Poliorcetes, hitherto known only in a specimen in Florence, two tetradrachms of Amphipolis, with the head of Apollo in front face, a beautiful tetradrachm of Lysimachus, a tetradrachm of Cydonia, several very rare silver coins of Panticapaeum and Phanagoria, two hitherto unknown fractions of the Persian daric, a silver stater of Mallus, a drachma of Sinope, a didrachm of Allifae and a diobolos of Rhegium. Some interesting imperial copper coins from Moesia and Thrace, a quarter

shekel of Simon Maccabaeus of the year 4, and a rare triens of Calatia deserve mention. Among Roman coins are a denarius of L. Praetorius Cestianus, with the head of Brutus, a hitherto unknown large bronze of the younger Agrippina, a fresh specimen of Fausta as *nobilissima femina*, and two contorniates, one with a portrait of Sallust, the other with two theatre masks. (*Berl. Phil. W.* October 14, 1899.)

The Hildesheim Silver Treasure II.—Further work on the Hildesheim table-service (cf. *Am. J. Arch.* 1899, p. 148) has produced some important restorations. A beautiful folding tripod consists of uprights in the form of elongated Hermae connected by sliding crossed bands and ending in knobs to fit under the rounded brim of the silver table top, which it supported. Design and ornamentation correspond to the third Pompeian style of the time of Augustus. A large bell-shaped crater with slender spiral handles has an enamelled necklace ornament beneath the brim and a heavier leaf design on the bottom. The flat brim of a large round plate is found to have been covered originally with a rich relief of vine leaves and grapes, a few fragments of which remain. The decorative handles have been restored to one of the three sets of platters, which was otherwise quite without ornament. The design of the hand-ewer is complete, all but the foot; and the feet of many of the vessels have been more correctly ascribed, with the help of the weight marks.

The Antiquarium has acquired also a flask-shaped silver vase from Boeotia, an early, perhaps fourth century, example of free leaf-and-tendrill ornament. The Hermopolis silver treasure has been increased to twenty-three pieces, and the weight marks show that the service, when complete, was very extensive, including, for instance, one set of two dozen cups. Six little egg cups are among those preserved. (*E. PERNICE, Arch. Anz.* 1899, 3, pp. 121-130; 14 cuts.)

BREMEN.—**Meeting of Philologists and Schoolmen.**—The forty-fifth meeting of German Philologists and Schoolmen was held at Bremen, September 26-30, 1899. Three pieces of ancient Greek music arranged by A. Thierfelder were played. Papers of archaeological interest were: Schuchhardt, on 'German-Roman Investigations in Northwestern Germany'; Bulle, on 'The Barberini Faun' (wrongly restored, the right leg should be less bent and in an easier position, while the left hand may have held lightly a thyrsus leaning against the shoulder. The statue probably Alexandrian, of the first half of the third century B.C.); Theodor Schreiber, on 'Recent Progress of Discovery at Alexandria' (telling of the discovery of graves and remains of buildings, and dividing Greek art in Egypt into three periods: first, the period of imported art, chiefly of Attic style; second, the period of the Alexandrian ideal style; third, that of Alexandrian naturalism); Zimmerer, 'Stereopticon Pictures from Syria and Asia Minor,' belonging to the Art Firm Photocol in Munich (views of scenery as well as of buildings, etc.). (*Berl. Phil. W.* November, 4, 11, and 18, 1899.)

LUXEMBURG

ARCHAEOLOGICAL DISCOVERIES FROM 1845 TO 1897.—

In *R. Arch.* XXXIV, 1899, pp. 407-418, J. Keiffer continues his account of discoveries in Luxemburg, describing the Roman establishments at Altrier, Tossenbergh, and Mersch in detail, and publishing several inscriptions.

Ibid. XXXV, 1899, pp. 439-452 (sketch map), he discusses the Roman roads of Luxemburg, especially the route Reims-Medunant-Cologne and Reims-Arlon-Treves.

ENGLAND

A BRITISH SCHOOL AT ROME.—An influential committee has been formed for the purpose of promoting the establishment of a British School at Rome on lines more or less similar to those of the School which was established some years ago at Athens, and an executive committee has issued a statement with an appeal for public support.

The statement refers to the success of the British School at Athens, and points out that a School at Rome would be of great importance. While the work of the School at Rome would be similar to that of the School at Athens, its scope would be much broader, though it would be debarred from undertaking excavations. The School would assist and interest students of mediæval and renaissance art as well as classical students. Further suggestions are made in regard to the management of the School. The appeal is published in full in the *London Times*, November 25, 1899, and the *Times* contributes a vigorous editorial in support of the movement. In *Athen.* December 9, 1899, H. F. P. explains the purpose and importance of the proposed school.

[The School is to open in the autumn of 1900.]

THE BRITISH SCHOOL AT ATHENS.—The annual meeting of the subscribers to the British School at Athens was held in London, October 26, 1899. The business of the meeting was transacted and the report of the managing committee was presented by the honorary secretary, Mr. William Loring. The report mentioned the work of individual students of the school, including the excavation of a tomb near Pheræ by C. D. Edmunds. The work of the school at Melos, Naucratis, Crete, and at Athens itself was described. The director, Mr. D. G. Hogarth, stated that he was about to reside chiefly in Crete and to leave the main part of the educational work of the school to Mr. Bosanquet. The work of the school could not be satisfactorily done by a single director. One man was needed for the work of education and another for exploration.

The prospects of the School were discussed and the need of a similar School at Rome set forth. Measures were taken for the establishment of a school at Rome. A full report of the meeting is given in the *London Times*, October 27, 1899.

CAERWENT.—**Excavations.**—At Caerwent, the ancient Venta Silorum, during the early autumn, beginning August 17, 1899, large parts of the city wall were excavated and remains of several buildings were uncovered. In one of these,—a house built about a court,—was a hypocaust with brick *pilæ*. Another house with hypocaust was only partially excavated. Remains of one of the city gates were discovered and many small objects found. Work is to be resumed in the spring of 1900. An account of the excavations is published in *Athen.* November 18, 1899.

CIRENCESTER.—**Roman Sculptures and Inscription.**—In *Reliq.* 1899, pp. 196-201 (6 figs.), discoveries at Ashcroft, Cirencester, are described by W. Donovan. On an altar is the inscription: *Suleis | Sulinus | Bruceti | v. s. l. m.*, a dedication to Sul, or rather to the Sulevae. (Cf. *C.I.L.* VII, No. 37.) The sculptures are two reliefs of the Deae Matres or Matronae, a

group of three draped female figures seated with three naked children beside them, and a small female head. Some architectural fragments were also found.

DORCHESTER.—**A Roman Pavement.**—In Fordington Field, just outside Dorchester, excavations have revealed a Roman pavement not far from the amphitheatre. It consists of a central octagonal ornament, surrounded by scrolls, guilloches, and similar designs, flanked north and south by oblong spaces, ornamented in a corresponding manner, but each containing in its centre a vase some two feet in length, elegant in shape, with two scroll handles. The tesserae are red, white, and black, and the artistic effect of the whole is excellent. On the west side at regular intervals are three spaces covered with small cubes of red brick, which suggest passages leading to other rooms. (J. J. FOSTER, *Athen.* September 2, 1899.)

LONDON.—**Recent Acquisitions of the British Museum.**—In *Cl. R.* 1899, pp. 371–373, H. B. Walters describes five vases and four cameos acquired by the British Museum. The vases are: (1) a black-figured Attic cyathus of the early sixth century B.C., with representation of the *πρόθεσις*; (2) black-figured amphora from Vulci, of the middle of the sixth century B.C. (GERHARD, *Auserl. Vasenb.* pl. 199; OVERBECK, *Heroische Bildw.* pl. 19, fig. 8), on one side Achilles dragging the body of Hector, on the other five Amazons; (3) black-figured amphora, obverse Achilles lying in wait for Troilus, reverse combat of two warriors, behind each of whom stands a woman; (4) red-figured calpis or pitcher of the school of Euthymides; flight of Troilus and Polyxena upon the discovery of the ambushed Achilles; (5) red-figured lebes (bowl) from Girgenti (GERHARD, *Auserl. Vasenb.* IV, pls. 329, 330); fine, free Attic style, with frieze representing a combat of Amazons and Attic heroes with many inscriptions. (Cf. *Athen.* July 22, 1899.) The cameos are from the Marlborough collection. One (No. 482), a sardonix, represents an emperor and an empress with divine attributes, perhaps Julian and Helena. The three others (Nos. 416, 423, 457) represent respectively Agrippina the elder, Claudius, and Marciana, the sister of Trajan. (Cf. *Athen.* July 8, 1899.)

AFRICA

ARCHAEOLOGY IN NORTH AFRICA.—A. Schulten, in *Arch. Anz.* 1899, 2, pp. 66–77 (3 cuts), gives a brief account of recent discoveries in Northern Africa, with original comments concerning the value of objects found and investigations accomplished.

ALGERIA.—**Inspector of Museums.**—Mr. René Cagnat, member of the Institute, has been appointed inspector-general of the scientific and archaeological museums in Algeria. (*Chron. d. Arts*, July 1, 1899.)

BENIAN.—**Epitaph of a Saint.**—In the ruins of a Christian basilica of the fifth century, on a *fenestella confessionis*, appears the following epitaph: *Mem(oria) Robb(a)e sacr(a)e Dei (ancillae) germana(e) Honor[at]i A]qu(a)e Siren(sis) ep(i)s(cop)i, c(a)ede tradi[t]orum] v[e]zata meruit dignitate(m) martiri(i): vixit annis L et reddidit sp(iritu)m die VIII kal(endas) Apriles. (anno) pro(vinciae) CCCXCV.* This Robba was a sister of Honoratus, Bishop of Aquaesirenses. She died in 434 A.D.—the victim as a Donatist of the catholics (*traditores*)—and was after worshipped as a martyr. (*C. R. Acad. Insc.* 1899, p. 277.)

BIR-BOU-REKBA (TUNISIA).—Dedicatory Inscription.—The following dedicatory inscription is inscribed on a pedestal found in the excavations at Bir-bou-Rekba: [*Imp(eratori) Caes(ari) M(arco) Aurelio Antonino Aug(usto) Pio B[ri]t(annico) Max[imo Arab(ico) Adiab(enico) p]ont(ifici) max(imo) trib(unicia) [pot(estate) XVII i]mperatori III co(n)s(uli) IV [p(atri) p(atriciae)] optimo max[imo invicto] principi co[l(onia) Aurelia C]ommoda Pia Felix [Augusta P]upput devota nu[m(ini) mai(esta)ti]q(ue) eius p(osuit) d(edicavitque)]. The date is 214 A.D. The inscription establishes the name *Colonia Aurelia Commoda Pia Felix Augusta Pupput*, which appears also on the dedicatory inscription to Licinius found at Souk-el-Adiob, and announced in June, 1899. (*B. Arch. C. T.* 1899, p. xiv.)*

CARTHAGE.—Excavations.—In *C. R. Acad. Insc.* 1899, pp. 308–322, A. L. Delattre describes his excavations in the first three months of the year, in the Punic cemetery between Bordj-Djedid and Ste. Monique. The tombs consisted of pits from which the grave-chambers opened. In the earlier graves were skeletons, but after the introduction of cremation there were burnt and broken bones in small ash chests. Many ordinary vases were found, besides some of glass. Among the terra-cottas are a seated lion, two figures of a young horseman draped and wearing a conical head-dress, three draped female flute-players, one of archaic style, several fragments of the goddess peculiar to Carthage, several specimens of female figures standing erect with outstretched arms, and a number of masks. Four plates give specimens of these types. Interesting intaglios, amulets, and other small objects are described. Several pieces of bone (cut) resemble the “bridges” of stringed instruments. An epitaph is translated “Tomb of Bodastoret, son of Azmelek, son of Abdmelqart, son of Gersoken.” Several *graffiti* were found (cut), some of them being the names of persons. Few Roman antiquities came to light, among them three fragments of inscriptions, one of which was a list of names. Héron de Villefosse, *ibid.*, pp. 306, 307 (2 pls.), publishes a bronze blade from the same excavations. At one end it is wide and takes the form of a segment of a circle. Perhaps this and other similar objects are razors. One side of this blade is adorned with a palm tree in incised lines. The other side has a human figure in strongly Egyptizing, but not genuine Egyptian, style, also incised. The work shows great ease and freedom. Some of the objects mentioned above and a few others are briefly described in *B. Soc. Ant. Fr.* 1899, pp. 203, 204, 247. Cf. also p. 230.

In *C. R. Acad. Insc.* 1899, pp. 552–564, is a report by Delattre on the later excavations at Bordj-Djedid. In general, the tombs and their contents are similar to those previously excavated. Two plates represent a stele, with a draped standing figure carved upon it, and a rather youthful male head of limestone, belonging to the latter part of the Punic period. Some good intaglios were found, also ornaments and utensils of various metals, glass, and ivory. Among the metal objects is a flat handle ending in a swan's neck. The handle is ornamented with incised drawing in Egyptizing style. (On other similar handles, see p. 272.) Punic epigraphy is represented by eight epitaphs, twelve inscriptions on vases, two marks (of masons?), and half a dozen potters' stamps. The longest epitaph is published as a plate, five others in fac-simile. An inscription gives the gene-

alogy of the author, Molocpalas, for seven or eight generations. Another mentions a man from Citium, still another a woman from Aradus.

Sepulchral Inscriptions.—In *C. R. Acad. Insc.* 1899, pp. 423-430, Ph. Berger publishes five inscriptions from Carthage. The first, found in the excavations at Dermech by Gauckler, is bilingual, and mentions Casiodorus, son of Marsalos, a Syracusan. This shows the close connection between Carthage and Syracuse. The remaining inscriptions are Punic epitaphs, communicated by Father Delattre. All belong to the time before the Roman conquest.

Roman Inscriptions.—The description of the superposed Roman cemeteries at Carthage (cf. *Am. J. Arch.* 1899, p. 565) is concluded by A. L. Delattre, *R. Arch.* XXXIV, 1899, pp. 382-396. Numerous inscriptions, mostly epitaphs, are published.

An Inscribed Lamp.—The inscription on a lamp found by Gauckler at Carthage reads: *annum | nov · fau|stum · feli|cem · mihi.* The inscription is surrounded by coins, tesserae, an almond, and a garland, apparently representing gifts. Such lamps were presented as New Year's presents. Cf. *C.I.L.* X, 8053-8055; XV, 6196-6210. (*B. Soc. Ant. Fr.* 1899, p. 140.)

Funerary Masks.—A series of funerary masks from Carthage was exhibited to the Academy of Inscriptions by Ph. Berger. Some of these are female masks with a marked Carthaginian type of face under an Egyptian coiffure. Others are grimacing masks, on some of which tattooing is evident, as well as seals or their impressions on the forehead and cheeks. (*C. R. Acad. Insc.* 1899, p. 335.)

A Curse inscribed on Lead.—In *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 212-220, Father Molinier publishes a Greek inscription of seventy-eight lines on a plate of lead found at Carthage, in a Roman tomb of the cemetery of the *officiales*. After invoking a number of deities, the writer calls down a curse upon his competitors in the race course, that they and their horse, mentioned by name, may be afflicted with blindness and lack of all power to win the race.

Engraved Bronze Handles.—In his report on his latest excavations at Bordj-Djédid, Father Delattre describes an engraved bronze handle (see p. 271). Several similar objects had previously been found. They are now cleaned by the Marquis d'Anselme and found to be engraved with various figures, some Egyptizing, some purely Greek. All these handles end in the neck of a swan or some similar bird, with wings covering the upper part of the handle. One representation consists of a bull or ox lying on the ground. On his back is a bird like a duck attacking a snake. Behind the bird is a great bee or fly. Above is an inscription of at least twelve Punic letters, apparently proper names. (HÉRON DE VILLEFOSSE, *C. R. Acad. Insc.* 1899, pp. 582, 583; pl.) Ph. Berger (*ibid.*) remarks that the characters are archaic, similar to those of the ancient Phœnician inscriptions of Egypt. Similar objects are also in the Bardo Museum.

DOUGGA (TUNISIA).—**A Latin Inscription.**—In *C. R. Acad. Insc.* 1899, pp. 362-364, an inscription found at Dougga, by a student of the French School in Rome, named Homo, is published. It reads: *Divo · Aug · sacr · et · | Ti · Claudio · Caesari · Aug · | Germanico · Pon · Max · Trib · | pot · VIII · Imp · XVI · Cos IIII · P · P · Cens · | C · Artorius · Bassus · Pon · Aed · Iivir · cur · | Lucusiae · patronus · pagi · dedicavit · | Iulius ·*

Venustus · Thinobae · filius · | honoribus · peractis · Flamen · Divi · Aug · et · | Cabinia · Felicula · uxor · et · Faustus · f · eius · | huic · Senatus · et · Plebs · ob · merita · patris · | omnium · portarum · sententis · ornam · sufetis · gratis · decrevit · suo · et · Fausti · Thinobae · patris · | honoribus · peractis · Flam · Divi · Aug · et · Firmi · qui · | civitas · ornamenta · sufetis · ob · merita · sua · decrevit · et · | Satri · sufetis · II · qui · a · civitate · et · plebe · suffragio · | creatus · est · et · institutoris · honoribus · peractis · | Flamen · Divi · Aug · fratrum · suorum · nomine · S · P · F · | curatore Iulio · Firmo · filio. The date is between January 25, 48 A.D., and January 24, 49 A.D. Of the persons mentioned, two have received the *ornamenta sufetis* by vote of the senate and people, while one has held the office of *sufes* twice. This is the earliest exactly dated inscription of Dougga. The use of the word *portarum* (l. 11) may point to a Punic custom of counting inhabitants by doors, or it may be connected with the important part played in Semitic life by the city gate. Possibly the word may be connected with the root *parat*, known in Hebrew. Clermont-Ganneau mentions a possible connection between the expression *dôrât* (*ham-mizrah ach le-*) *omnium portarum sententiis* and that of the great Punic inscription of Maktar, in which he recently recognized the African *curiae*.

EL-ALIA (TUNISIA).—A Roman Villa.—Excavations at El-Alia have laid bare a large Roman villa, with frescoed walls and mosaic floors. In the bedrooms the mosaics are geometrical patterns, in the reception rooms decorative landscapes. One represents fishing with a net on the African coast; the other, hunting the crocodile, hippopotamus, and ibis in the Egyptian marshes. Besides the plants and beasts, there are represented about eighty persons and about fifty buildings of various kinds. These show that wood was the chief material for building in the country, and that glass windows were common in the first century after Christ. The mosaics, generously offered to the state by the proprietor of the land, M. Demeure, are now exposed to view, one at the Bardo Museum, the other at the museum of Sousse. (P. GAUCKLER, *C. R. Acad. Insc.* 1899, pp. 580, 581.)

LAMBAESIS.—A Building dedicated to Hadrian.—Some important discoveries have been made recently at the camp at Lambaesis, where excavations have been continued under the direction of Abbé Montagnon. In the so-called "Camp of the Auxiliaries" there has been discovered an enclosure about 650 feet square. In the middle stood a peristyle, with an inscription in honor of the Emperor Hadrian. This inscription, which has been found, reads: *Imperatori Caesari Traiano | Hadriano Augusto | fo[r]tis[sim]o libera[lissim]o[que] | le[gio III Aug(usta)] | adprob[ante exe]rcitu.* Above the peristyle was placed the address of Hadrian to the troops. The beginning of this address, giving the exact date, has been found. The inscriptions on the stone are: *Imp(erator) Caesar Traianus | Hadrianus Augustus | | exercitationibu[s] inspectis adlocutus | est is qua[e] inf[ra s]cripta sunt | Torquat[o II et Lib]one co(n)s(ulibus) k(alendis) Iulis.*

On the 1st of July, 128, the Emperor Hadrian delivered the address before the Third Legion at Lambaesis, the name of which has been erased from the third line. The words following form the beginning of his address to the *Ala Prima Pannoniorum*, delivered several days later, perhaps on the 13th of July: *... III idus Iulias ala I Pannoniorum | omnia per ordinem egistis campum incursionibus complestis | iaculati estis non ineleganter has[is] b]revi[us] et duris lanceas plures vestrum permiseru[n]t valuis[is]*

et hic agiler et heri velociter si quit defuisset desiderarem | si quit eminuisset designarem tota | exercitatione peraeque pla|cuistis Catullinus legatus meus clarissimus inc.... (B. Arch. C. T. November, 1899, pp. xi and xii.)

New Fragments of an Inscription. — In *B. Soc. Ant. Fr.* 1898, pp. 377–379, Héron de Villefosse publishes five small fragments of the inscription *C.I.L.* VIII, No. 18,042 (=2532), Hadrian's order of the day for the troops of Africa. They were found by P. Gauckler.

Numerarii. — A fragmentary inscription found at Lambaesis (cf. *C.I.L.* VIII, 2251, 2253, 2254) has been restored by A. Papier, and is discussed in the *Comptes-Rendus* of the *Académie d'Hippone*, 1898, pp. xxxiv–xli. It is a dedication from officers of the Third Legion *Augusta Pia Vindex* of the end of the second century, and contains the only epigraphical mention of *numerarii*. These were quartermasters, in the earlier empire being quite distinct from the *librarii*; but after Diocletian, the *numerarii* may have been the same as the *librarii* of the early empire.

MAKTAR. — **A Virgilian Inscription.** — In *B. Soc. Ant. Fr.* 1899, pp. 168, 169, R. Cagnat publishes, from a letter of P. Gauckler, an inscription from a Roman nymphaeum of the fifth century after Christ at the spring of Ain Medoudja:

INTVS · AQVE · DVICES · BIBOQVE · SEDILIA · SAXA
NIMFARVMQVE · FLORENTI · FVNDATA · LABORES ·
DE · DONIS · DEI ·

The beginning is evidently Virgil, *Aeneid*, I, 167, *Intus aquae dulces vivoque sedilia saxo Nympharumque (domus)*. This is another proof of the lasting popularity of the *Aeneid*.

MATEUR (TUNISIA). — **Inscriptions.** — In *B. Soc. Ant. Fr.* 1898, pp. 333–337, ten inscriptions are published from copies by Delattre, communicated by Cagnat. They are from different places near Mateur. Eight are sepulchral, mostly fragmentary. One from an aedicula appears to record something connected with a religious building or worship. One from Carthage consists of incomprehensible letters, and was probably an abraxas.

SOUK-EL-ABIOD. — **Two Inscriptions.** — Two completely preserved inscriptions were presented by Paul Gauckler to the Académie des Inscriptions at a meeting in June, 1899. The first is on a pedestal of the form of an altar. It is similar to other African inscriptions of the third and fourth centuries: *Magno ac fortiss|mo principi, | imp(eratori) Caes(ari) Liciniano | Licinio Pio, felici | invicto, Aug(usto), | Col(onia) Aurelia Cômmoda, p(ia) f(elix) | Aug(usta) Pupp(ut) (anorum), numini maies|tatie eius devotissima*. This inscription, dating in the reign of Licinius the father, concerns the city Pupp(ut), once a *vicus* and raised to the position of a Roman colony between 176 and 179. Its recognition was due to the dignity of its patron, to whom the second inscription refers, and who had been in charge of the proconsular government of Africa.

This second inscription is engraved on a pedestal in form of an altar, which was built into a Byzantine wall not far from the place where the first inscription was found: *L(ucio) Octavio Cornelio, P(ublii) f(ilio), Salvio Iuliano | Aemiliano, decemviro quaestori imp(eratoris) | Hadriani, cui divos Hadrianus soli | salarium quaesturae duplicavit | propter insignem doctrinam, trib(un)o pl(ebis), | praetori, pr(aefecto) aerar(um) Saturni, item mil(itaris),*

co(n)s(uli), | *pontif(ici)* *sodali Hadrianali*, *sodali* | *Antoniniano*, *curatori aedium* | *sacrarum*, *legato imp(eratoris) Antonini* | *Aug(usti) Pii Germaniae Inferioris*, *lega[to imp(eratorum) Antonini Aug(usti) et Veri Aug(usti)* | *Hispaniae Citerioris*, *proco(n)s(uli)* | *provinciae Africae*, *patrono* | *d(ecreto) d(ecurionum)*, *p(ecunia) p(ublica)*.

This gives the *cursus honorum* of the patron of Pupput, L. Octavius, who can be identified by the words, *cui divos Hadrianus soli salarium quaesturae duplicavit, propter insignem doctrinam*, with the famous *iuris consultus* Salvianus Iulianus of the time of Hadrian, spoken of as *summum auctorem iuris scientiae* in *Codex Iustinianus*, 3, 33, 15, also referred to in 4, 5, 10: 6, 61, 5. See also *Prosopographia Imperii Romani*, III, p. 164, for the frequent mention of the name Salvius Iulianus in historical and epigraphic texts relating to the reigns of Hadrian, Antoninus, Marcus Aurelius, and Commodus. The government of L. Salvius Iulianus in the province of Africa may most probably be dated about 164 A.D. (*C. R. Acad. Insc.* 1899, pp. 366, 374.)

TEBOURSOUK (TUNISIA).—*Inscription.*—In *B. Soc. Ant. Fr.* 1898, p. 406, P. Gauckler gives the text of an inscription: *Ex avio loco et rupe* | *iam minanti statuas n(unero) IV marmoreas* | *ad cultum et splendo[rem] apodyteri(i) ther[marum]*, *resp(ublica) col(oniae)* | *Thib(ursicum) bure trans-* | *tulit*, | *provisione i[n]stanti* | *A(uli) Aureli(i) Honorat(i)* | *Quetiani eq(uitis) R(omani) cur(atoris)* | *reip(ublicae)*. It is not earlier than the end of the third century after Christ.

THAPSUS.—*The Punic Necropolis.*—In *B. Arch. C. T.* December, 1899, p. xiii ff., P. Gauckler describes the Punic cemetery at Thapsus, discovered by Novak and Épinat. In general, the necropolis resembles those of Monastir, Lemta, Mahdia, Salakta, and El-Alia. The shafts are larger than at Carthage, the chamber is rectangular, with or without a niche; the walls rarely decorated with simple horizontal bands of brown color. The Roman necropolis is above the Punic tombs. Native and imported vases and terra-cottas have been found, as well as many lamps. Two stone *cippi*, each ending in a pyramidion at the top, are peculiar. The other objects found resemble those found in other Punic cemeteries.

UNITED STATES

CAMBRIDGE.—*Ancient Sculptures in the Fogg Art Museum.*—During the year, Mr. E. W. Forbes imported, and deposited in the Museum as an indefinite loan, a Meleager, head and torso of a Greek marble statue; a Battle of Amazons, three parts of a Graeco-Roman sarcophagus relief in marble; and a small Aphrodite head in marble. The Meleager statue was found about three years ago at San Marinella, 30 miles from Rome, and about 100 yards from the spot where the Meleager now in the Berlin Museum was found. It is mentioned by Petersen (*Röm. Myth.* X, p. 92). It is either an original of the fourth century B.C., or an excellent Roman copy. It has the characteristics of the work of Scopas. The Aphrodite head was lately excavated in Athens, and it appears like a fragment of Greek work of, perhaps, the third century B.C. The Amazon relief is Graeco-Roman and may have been wrought at any period from the time of Augustus to that of Hadrian. This relief was purchased from the Baracco collection in Rome. (From the Annual Report of the Curator.)

BYZANTINE AND MEDIAEVAL ART

GREECE

MISTRA.—**Inscriptions.**—The liturgical and iconographic inscriptions from Mistra are to appear in a publication devoted to Mistra and its monuments by the French school at Athens, but the others are published by Gabriel Millet, 'Inscriptions Byzantines de Mistra' in *B.C.H.* XXIII, 1899, pp. 97-156 (pls. xiv-xxiii; 54 cuts). Fifty-seven texts are published, many of great length.

ITALY

BRESCIA.—**The Funerary Monument of Berardo Maggi († 1308).**—The monument of Bishop Maggi, of Brescia, has been restored and placed in its original position in the cathedral of Brescia. The statue of the bishop and other figures show a realism hardly to be expected at this period. As perhaps the earliest work of Ugo du Campione, this tomb holds an important rank in the history of Romanesque sculpture in Italy. (*C. v. F., Rep. f. K.* 1899, pp. 252, 253.)

CHIARAVALLE.—**Restoration of the Abbey.**—The restoration of the southern side of the cloister of the abbey at Chiaravalle has been resumed. If funds permit, the façade, the tower, and the entrance to the monastery also will be restored. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 200-202.)

COMO.—**Palazzo del Broletto Restoration.**—The restoration of the cathedral of Como having been substantially completed, the adjoining Palazzo del Broletto is being repaired. The piers of the arcade have been strengthened, the balcony replaced in its original position, and the windows reopened. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 230-233.)

MILAN.—**S. Maurizio al Monastero Maggiore to be restored.**—It has been decided to restore completely the façade of S. Maurizio, which has suffered much injury owing to the poor construction and materials used. (*Arch. Stor. Lomb.* XXIII, 1899, p. 179.)

S. Maria delle Grazie Restoration.—The restoration of the lower portion of Santa Maria delle Grazie has been completed, and a railing is being erected to protect the church from future injury. The restoration of the small cloister on the Via Caradosso is finished, and that of the sacristy has been begun. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 172-177.)

MONZA.—**The Cathedral Restoration.**—The restoration of the façade of the cathedral at Monza has been resumed. The death of the architect, Professor Landriani, who had the work in charge, would have been a serious obstacle, had not his plans been so well advanced. The work has been intrusted to his assistant, the engineer, Enrico Mina. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 208-210.)

PISTOIA.—**Exposition of Sacred Art.**—During the summer of 1899, an exposition was held at Pistoia, in connection with which some two thousand objects of sacred art were exhibited, including the treasures of the cathedral, notably the reliquaries and chalices of the fourteenth and fifteenth centuries; also sculptures and textiles from the Ceppo Hospital, paintings from the Commune, and objects from churches and private collections. On account of the fire at the exposition at Como, the Ministry of Public Instruction will no longer exhibit objects under its care. (*R. Art Chrét.* 1899, pp. 518-522.)

RAVENNA.—**The Palace of Theodoric.**—Recent excavations in the Monghini gardens have brought to light remarkable mosaic pavements of the Alexandrian character. As the level of these pavements is about 1.50 m. below the foundation of the walls of the so-called Palace of Theodoric, facing on the Corso, it follows that the existing building is of later date. Tradition, historians, and chroniclers are, however, right as to the site of the palace. The original palace must have been built of better material, planned on a grander scale, and quite different in style, as may be judged not only from the mosaic representation of it in S. Apollinare Nuovo, but from descriptions of the palace by ancient writers. (A. MELANO in *Am. Arch.* October 7, 1899, pp. 3, 4.) The existing building was probably erected by the East Roman Exarchs. It may have served as a barrack for soldiers. (*Athen.* July 22, 1899.)

Works of Restoration.—The windows of the mausoleum of Galla Placidia, which have long been walled up, are to be reopened and the marble revetment below the mosaics reestablished. At the Orthodox Baptistery, the marble revetment is also to be restored. At S. Apollinare in Classe, the windows and arcades which had been walled up are to be reopened. The church of S. Vitale is to be restored to its early character by the removal of altars and furnishings in later style. (*R. Art Chrét.* 1899, p. 393.)

Dante Portrait in Santa Maria in Porto.—The frescoes in the church of Santa Maria in Porto deserve careful study. Long attributed to Giotto, and now assigned to Giovanni and Pietro, local fourteenth century painters, they represent scenes from the life of the Virgin, scenes from the life of the Baptist, saints, and martyrs. In the section representing the Presentation of the Virgin in the Temple, Gerspach thinks he recognizes portraits of Guido Novella da Polenta and of Dante. The Dante portrait may have been painted during the lifetime of the poet, or, at the latest, a few years after his death. (*R. Art Chrét.* 1899, pp. 399, 400.)

ROME.—**Contribution to the History of Miniature Painting.**—At the May meeting, 1899, of the R. Soc. Rom. di Storia Patria, Vincenzo Federici announced that he was engaged upon a work to be entitled *Contributo allo studio della miniatura romana dal secolo IX al XVI*. These miniatures are scattered in the manuscripts of many libraries in Rome.

Mediaeval Hall of Justice.—At the northwest corner of the Palazzo Senatorio on the Capitol remains of the mediaeval building have been brought to light belonging to the Lovium, or covered loggia, and to the Hall of Justice. The walls are covered with much-injured frescoes. This wing of the palace was erected in the ninth or tenth century. In 1084 Henry IV levelled the palace to the ground. It was rebuilt in or about 1143. The walls discovered on the present occasion date probably from a later reconstruction of the time of Boniface VIII (1300). (LANCIANI, *Athen.* September 30, 1899.)

Restorations of Mediaeval Churches.—The restoration of the church of S. Maria in Cosmedin has been very satisfactorily completed, as has that of the underground church of SS. Petronilla, Nereus, and Achilles in the farm of Torre Marancia on the Via Ardeatina. The restoration of the churches of S. Maria in Aracoeli and of S. Saba has been undertaken. A description of the completed restorations mentioned is given by R. Lanciani in *Athen.* January 13, 1900.

SYRACUSE.—Recently Discovered Byzantine Churches.—Paolo Orsi has brought to light the remains of many Byzantine churches. At Cittadella near Noto were found a necropolis exhibiting various modes of burial and the ruins of four churches of basilical and central construction. The coins found in the neighborhood, all of Byzantine origin, indicate that this poor village dates from the late empire, and continued to exist until the eighth century. Near Buscemi was found a rock-cut church, S. Pietro, in which the atrium, as well as nave and apse and sacristy, was excavated in the solid rock. The altar and the cathedra were similarly rock cut. This seems to have been originally a burial-place, then a small church, and is now used as a sheepfold.

About 12 km. southeast of Syracuse is a circular tower, now transformed into a residence. Beneath the tower a Byzantine church was found, having a square atrium and three semicircular apses. The church was well built, though without ornament.

Near Priolo, north of Syracuse, is a little church, S. Focà, built over a portion of a Byzantine, or pre-Byzantine, church, of basilical plan, which was remarkable in having its nave covered with a barrel vault.

These churches are described by Paolo Orsi in an article entitled 'Nuove Chiese Bizantine nel territorio di Siracusa.' (*Byz. Z.* 1899, pp. 613-642.)

FRANCE

PARIS.—The Altar of Charlemagne.—There has recently been discovered in the Cabinet des Estampes in the Bibliothèque Nationale a drawing of the 'Altar of Charlemagne,' which stood in the abbey church of S. Denis before the Revolution. The drawing shows that the base of the altar dates from the time of Charles V, but the upper portion was much earlier, possibly of the ninth century. (G. BAPST, in *B. Soc. Ant. Fr.* 1899, p. 168.)

ROUVRES.—Discovery of a Statue of St. John.—At Rouvres, near Dijon, has been discovered a statue of St. John. It is of a fine calcareous stone, in style resembling the St. John in the church at Mussy-l'Évêque, a cast of which is in the Trocadero. This statue represents Burgundian work of the early fourteenth century, and shows that the sculptors of the Chartreuse at Dijon were preceded by a school of sculptors who already exhibited a strong realistic and individualistic tendency. (*B. Soc. Ant. Fr.* 1899, pp. 160-162.)

SAINTE-CROIX-EN-JAREZ.—Discovery of Fourteenth Century Paintings.—One of the fruitful results of the archaeological excursions of the Société de la Diana de Montbrison has been the discovery of the epitaph of Thibaud de Vassalieu, archdeacon of the church of Lyons, and of the mural paintings which adorned his burial-place in the choir of the monastic church of Sainte-Croix-en-Jarez (Loire). The paintings, which had been concealed by whitewash, represented Thibaud de Vassalieu on his funerary couch, the prior and twelve monks of this Carthusian monastery, a coronation of the Virgin, and a crucifixion of Christ. The paintings may be dated between the years 1327 and 1340, and are perhaps the earliest examples of the work of the School of Lyons. Some thirty-six painters are known to have been established at Lyons during the fourteenth century, as shown by N. Rondot in his *Les Peintres de Lyon du XIV au XVIII*

Siècle. The paintings of Sainte-Croix-en-Jarez are published by M. A. Vachez, in the *M. Soc. Ant. Fr.* 1899, pp. 234-257.

GERMANY

A Periodical devoted to Mediaeval Fortifications.—The Society for the Preservation of Ancient German Castles, founded at the beginning of the present year, now issues a useful periodical, under the title of *Der Burgwart, Zeitschrift für Burgenkunde und das ganze mittelalterliche Befestigungswesen*. (*Athen*. November 11, 1899.)

DRESDEN.—**Cranach Exhibition.**—During the present year, 1899, Karl Woermann, director of the Museum at Dresden, has arranged an exhibition of the works of Cranach. Scattered in various places, these works have not been comprehensively studied, and this exhibition has distinctly furthered the knowledge of them, as may be gathered from the notice of the exhibition by W. von Seidlitz in the *Gaz. B.-A.*, September, 1899, pp. 191-207. In the *Rep. f. K.* 1899, pp. 236-249, Max J. Friedländer comments upon 158 of the 170 paintings exhibited. The catalogue was prepared by Dr. Woermann.

NIDEGGEN.—**Discovery of Frescoes.**—During the restorations in the parish church at Nideggen in Rhenish Prussia, there have been discovered interesting mural paintings, analogous in style to those of the school of Cologne. In the apse is figured Christ surrounded by symbols of the four evangelists accompanied by St. John, the Virgin, two armed knights, and female figures like the saints at St. Gereon's, Cologne. On the triumphal arch are two large figures of angels. The walls of the nave and the pews were also painted. (*R. Art Chré.* 1899, p. 270.)

BELGIUM

MALINES.—**Restoration of the Market House.**—The picturesque fourteenth century Market House is to be freed from its surrounding shanties and restored to its original condition. (*R. Art Chré.* 1899, p. 270.)

GREAT BRITAIN

ASHMANSWORTH.—**Mediaeval Paintings.**—A number of wall-paintings in distemper, representing Scriptural subjects, such as the descent of Christ into hell, have been uncovered during the repairs of the ancient church of Ashmansworth, near Highclere. The church is, generally speaking, Norman, but some portions belong to the beginning of the thirteenth century. To this period part of the pictures belong. (*Athen*. October 7, 1899.)

BRISTOL.—**Ivory Draughtsman and Essence Box.**—John E. Pritchard exhibited to the Society of Antiquaries a twelfth century walrus-ivory draughtsman, carved in high relief, and representing a wyvern and a dog biting each other within a border of seven arched compartments, each containing a ribbed leaf. This was found at Bristol, as was also a sixteenth century essence box of ivory, containing five compartments holding small glass phials. (*Proceedings Soc. Ant.* XVII, pp. 16-17.)

GEDNEY.—**St. Mary Magdalen.**—In the *Proceedings Soc. Ant.* XVII, pp. 197-201, W. D. Caröe publishes an account of the southwestern door of the church of St. Mary Magdalen at Gedney in Lincolnshire. The door dates from 1320, consists of a succession of vertical panels, and con-

tains an inscription in fine Lombardic characters. Beneath the thick coat of paint which now covers the door was found an ivory carving, representing the Cross, St. Mary, and St. John under a triple canopy. The carving is apparently of English workmanship. The original lock case and lock, inscribed, still remain in place.

HOLDENBY, NORTHAMPTONSHIRE.—*An Anglo-Saxon Cemetery.*—In *Athen.* November 11, 1899, is a description of an Anglo-Saxon cemetery found at Coneybury Hill, near Holdenby House. Thirteen interments were uncovered. The objects found were chiefly ornaments and utensils of bronze, iron, glass, and amber, including several fibulae. The date of the interments is apparently the sixth century.

LLANWIT MAJOR.—*A Fragment of a Pillar with Celtic Ornament.*—At Llanwit Major, Glamorganshire, a fragment of a pillar has been found. This fragment, like an entire pillar at the same place, has a groove in one side. The two were probably originally connected by a slab of stone inserted in the grooves. The pillars are ornamented with a Celtic decoration of interlaced work and a chevron pattern. (*Reliq.* 1899, pp. 201–203; 2 figs.)

LONDON.—*Discovery of Part of the Priory of Christ Church.*—The recent destruction of a house on the south side of Mitre Street, Oldgate, has brought to light a fifteenth century arch, which no doubt formed part of the buildings of the priory of Christ Church, Oldgate. An historical account of the church and priory is given by Philip Norman in *Proceedings Soc. Ant. XVII*, pp. 110–117.

RUSSIA

ANCIENT RUSSIAN PADLOCKS.—In the excavations at what was once the town of Bolgary, at the confluence of the Kama and Volga rivers, have been found numerous antiquities. Among these are a series of bronze padlocks of the form of quadrupeds. These are certainly of Oriental origin and analogous to Chinese padlocks. Outside of Russia they are rarely found. Some have been discovered in Hungary, and one in the possession of G. Kieseritzky, the Curator of Antiquities in the Hermitage, was found in Rhodes. (*J. DE BAYE, B. Soc. Ant. Fr.* 1899, pp. 156–160.)

CHRISTIAN MONUMENTS OF CHERSONNESE.—In *R. Arch.* XXXV, 1899, pp. 227–231 (2 figs.), G. Katcheretz gives, as No. 7 of his 'Notes d'Archéologie Russe,' a summary of the Russian work of Bertier-Delagarde, in *Materials for Russian Archaeology*, XII, 1893. The only important monuments of Chersonnese seem to be the basilicas, the number of which is large. They are peculiar in being nearly or quite as broad as they are long. The chief of these, the old cathedral, is described in detail. Not only in this church, but also in others of approximately the same date, the ninth or tenth century, are mosaics and capitals identical in style with those found at Ravenna, Venice, and Salonica. These have been called Romanesque, but it is now evident that they are Byzantine. The marble at Ravenna comes from Proconnesus. It now becomes clear that not merely rough blocks of marble, but finished capitals and the like were exported from Byzantium. A baptistery in the form of a circle extended on three sides by added semicircles, on the fourth (west) side by a rectangle, is briefly described.

RENAISSANCE ART

ITALY

ABBIATEGRASSO.—*Renaissance Coins.*—At Abbiategrosso, not far from Milan, a small treasure of gold coins was dug up in the summer of 1898. They are catalogued and described by Solone Ambrosoli, in *R. Ital. Num.* 1899, p. 227. There are thirty-five gold pieces of the fifteenth and sixteenth centuries, as follows: Hungarian ducats of Matthias Corvinus (1458–90), Wladislaus II (1490–1516), and Louis II (1516–26); German, of Cologne and Reichstein; French, of Charles VIII (1483–98), Louis XII (1498–1515), Francis I (1515–47); a doubloon of Ferdinand and Isabella of Castile (1474–1516); and contemporary mintages of Milan, Mantua, Venice, Rodi, Florence, Lucca, Siena, Rome, Bologna, Urbino, Ferrara, and—most important of all—a unique ducat of Pope Julius II, struck at Parma in the last two months of his pontificate, 1513, which fills a gap in the numismatic history of the time. (*Cf. Arch. Stor. Lomb.* XXIII, 1899, p. 213.)

BADIA AGUANO.—*Renaissance Coins.*—Near Badia Aguano, in the province of Arezzo, in May, 1898, an earthen jar was found containing about ninety silver coins and sixty of copper or billon. The coins had been buried in the fifteenth century, and the oldest of them—silver of the republic of Pisa—go back to the thirteenth century. The others belonged to the mints of Florence (eighty-six specimens), Pisa, Siena, Arezzo, Fermo, Pesaro, Rimini, and Rome. (*R. Ital. Num.* 1899, p. 305.)

BOLOGNA.—*Fifteenth Century Sculptors.*—In the *Rep. f. K.* 1899, pp. 279–299, Francesco Malaguzzi Valeri writes a *Contributo alla storia della scultura a Bologna nel quattro cento*. He has examined the archives for references to Jacopo della Quercia, Nicolò dell' Arca, Sperandro da Mantova, Francesco di Simone and Vincenzo Onofri, and has also discovered the names of the following fifteenth century sculptors, with references to one or more of their works in Bologna: Domenico da Cuesa, Battista dalla Pevera, Giacomo e Stefano da Vigeano, Leonardo di Pietro Filippi, Andrea da Como, Geminiano, Pietro Torregiani, Tommaso Filippi, and Giovanni di Battista Filippi.

BRESCIA.—*Palazzo della Loggia Restoration.*—The Palazzo della Loggia at Brescia, a charming example of Venetian Renaissance architecture, when erected between 1550 and 1560 was surmounted by a dome. This was destroyed by fire in 1575, and replaced by an octagonal roof designed by Vanvitelli. The dome is to be restored in accordance with the original plan. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 220–226.)

FLORENCE.—*A Botticelli Madonna.*—Some months ago Mr. William Cornish found in a granary in the Pitti Palace at Florence a circular panel of wood, so incrustated with dust that the painting on it was almost concealed. The picture was cleaned, and it was seen that this was a work of Sandro Botticelli. The roses in the background have caused this picture to be named 'La Madonna delle Rose.' It is attributed to the artist's earlier period. (*N. Y. Tribune*, December 10, 1899.)

The Virgin is represented kneeling before the infant Jesus. Several angels are represented, and a hedge of roses, daisies, and violets. (*Chron. d. Arts*, March 3, 1900.)

Discovery of a Fresco by Andrea del Castagno.—The recently established *Kunsthistorisches Institut* has initiated its career of usefulness by discovering a fresco by Andrea del Castagno in the Santissima Annunziata. It represents the Trinity, and is mentioned by Vasari. It has been concealed behind an altarpiece by Allori. The style of this fresco proves that the Last Supper in Sant' Apollonia cannot have been painted, as some critics affirm, by Andrea del Castagno. (GERSBACH, *R. Art Chrét.* 1899, p. 243.)

MANTUA.—**The Ducal Palace Restoration.**—The restoration of the Ducal Palace progresses favorably. Its ancient façade, portrayed in a painting by Morone at the close of the fifteenth century, is being restored, the Cortiletto and the Appartamento della Grotta are beginning to assume their original appearance, and the Cavallerizza with its eighteenth century decorations is being preserved from deterioration. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 245-255.)

MILAN.—**Restoration of the Castle.**—The work of restoring the castle still continues. The Loggia di Galeazzo M. Sforza having been completed, the stairway opening into it was next undertaken. The stairs have been renewed, and the decoration of the walls restored according to the original design. The courtyard contains fragments of ancient sculpture. In it has been placed a fountain, designed by L. Beltrami from the study of a font established by Sforza in the church at Bellinzona. The Torre di Bona di Savoia is now being restored. In 1898 L. Beltrami and G. Moretti published their *Resoconto dei lavori di restauro eseguiti al Castello di Milano*, which has aroused public interest and brought in additional subscriptions. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 184-192.)

Discovery of a Fresco of the Last Supper.—The removal of some whitewash in the church of S. Lorenzo revealed a fresco of the Last Supper. The Ufficio Regionale proposed to remove it to the Refectory of S. Maria delle Grazie, but the authorities of S. Lorenzo have decided that it shall remain in its original position. (*Arch. Stor. Lomb.* XXIII, 1899, p. 183.)

Discovery of a Painting by Bramantino.—In the church of S. Maria della Passione at Milan, D. Santambrogio has recently discovered a painting representing the sacrifice of Isaac. The character and style show that this painting is by Bramantino. (C. v. F., *Rep. f. K.* 1899, pp. 251-252.)

MOGLIANO.—**A recently discovered Painting by Lorenzo Lotto.**—At Mogliano, between Macerata and Fermo in the Marches, Charles Loeser has discovered a painting by Lorenzo Lotto, which has escaped the notice of art historians. It represents an Assumption of the Virgin in the presence of St. John the Baptist, St. Joseph, St. Francis, and the Magdalen. The painting is signed Lorenzo Lotto. In the *Libro dei Conti di Lorenzo Lotto* (*Gall. Naz. Ital.*, Anno I), we find that Lotto contracted on November 16, 1547, for a painting ordered by Jacopo Boninfanti of Mogliano. This painting was delivered June 10, 1548. There is little doubt that the recently discovered altarpiece at Mogliano is the painting of 1548. (*Rep. f. K.* 1899, pp. 319, 320.)

PAVIA.—**Restoration of the Certosa.**—The general restoration of the large cloister and its adjoining cells has been completed. This concerned especially the roof, which was giving way, and the doorways, which needed

repairing. The door to the small cloister, long walled up, has been opened and restored. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 269-273.)

PISTOIA.—**Verocchio and the Altarpiece in the Sacristy of the Cathedral.**—In the sacristy of the cathedral at Pistoia is an altar-piece generally ascribed to Lorenzo di Credi. Morelli alone asserted that he recognized in it the work of Verocchio finished by Lorenzo di Credi. The cathedral archives substantiate the view of Morelli, as recently discovered by Alfredo Chiti. It appears that the altarpiece was ordered of Verocchio in 1475, through a legacy of Bishop Donato Medici, that in 1478 or 1479 it was still unfinished, and in 1485 completed by Lorenzo di Credi. (C. v. F., *Rep. f. K.*, 1899, pp. 338-339.)

ROME.—**The Borghese Museum.**—The papers determining the acquisition of the Borghese Museum by the Italian government have just been signed. The government is to pay 3,600,000 fr. in ten annual payments assigned to the accounts of Public Instruction and the Treasury. Titian's painting, 'Sacred and Profane Love,' was alone valued at 2,500,000 fr. (*Chron. d. Arts*, August 26, 1899.) A detailed statement of the terms of the sale is contained in *Il Popolo Romano*, December 23, 1899.

Important Inventory of a Collection of Paintings.—Through the kindness of Léon G. Péliissier, there was presented to the S. Rom. d. Stor. Pat., at its meeting March 10, 1899; a copy of the Codice Corsiniano, 1051 (33 A. 11), which contains an inventory of a collection of paintings exhibited in 1736 in the cloisters of S. Giovanni Decollato. As this collection seems to have been the foundation of the Capitoline collection of paintings, the publication of this inventory should be useful to historians of art. (*S. Rom. Stor. Pat.* 1899, p. 318.)

The Chigi Botticelli.—The Madonna and Child, of Sandro Botticelli, the gem of the Chigi collection, has been sold and exported. The picture belongs to the cycle of the 'Vierge aux Roses' now in the Louvre, and represents the Virgin Mary with the infant Christ on her knees, to whom an angel offers grapes and ears of grain. The angel is painted with the Verocchio-like grace characteristic of Botticelli. (R. LANCIANI, *Athen.* July 22, 1899; cf. *R. Art Chrét.* 1899, p. 244.)

SONCINO.—**Restoration of the Fortress.**—The town of Soncino, having raised a sum of money for the restoration of the Rocca Sforzesca, a government subsidy was secured, and considerable progress has been made in repairing and strengthening this important fortress. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 241-244.)

FRANCE

PARIS.—**Bequest of Count Delaborde.**—The late Comte Henri Delaborde has bequeathed to the Bibliothèque Nationale, Paris, his copy, to which he had added numerous annotations, of the work on Marc Antonio published by himself in 1888, and also a complete series of impressions of the plates published by the Société Française de Gravure from its beginning until the death of the testator. (*Athen.* September 9, 1899.)

GERMANY

JEVER.—**Renaissance Monuments.**—Hermann Ehrenberg, author of *Die Kunst am Hofe der Herzöge von Preussen*, Berlin, 1899, is devoting himself to further study of the Renaissance monuments of North Germany.

In the *Rep. f. K.* 1899, pp. 195-207, he discusses 'Die Renaissance Denkmäler in Jever.' This article is concerned with the work of Cornelis Floris, especially with the monument of Ede Winken in the parish church, and the wooden ceiling in the Schloss at Jever.

BELGIUM

ANTWERP. — **Van Dyck Exhibition.** — The exhibition of the works of Antony Van Dyck, held at Antwerp in the present year, 1899, in honor of the tercentenary of his birth, brought together many paintings by the master. An illustrated notice of this exhibition is given by Henri Hymens in the *Gaz. B.-A.* September, 1899, pp. 226-240; October, 1899, pp. 320-332.

BRUSSELS. — **Acquisition of a Triptych.** — The National Museum at Brussels has recently acquired the remarkable sixteenth century triptych owned by Count d'Oultremont de Warfusée. This was published in *R. Art Chrét.* 1896, p. 349, and in the *Gaz. B.-A.* April and May, 1899. Camille Benoît attributes the triptych to Jan Mostart of Haarlem. (*R. Art Chrét.* 1899, p. 270.)

MALINES. — **The Tower of Saint Rombaut.** — In the *R. Art Chrét.* 1899, pp. 185-190, Jules Helbig makes an appeal for the completion of the tower of Saint Rombaut, metropolitan church at Malines. Although resolutions in favor of the completion of this tower were passed in 1884 and 1897, nothing has been done. The tower was begun in 1452, after designs by Jean Keldermans, but never completed. It would seem to have been a happy accident that this undertaking has been delayed, since the original plan has been only recently recovered and published by Canon Van Caster in a pamphlet entitled *Le Vrai Plan de la Tour de Saint-Rombaut à Malines.* Malines, 1899.

ENGLAND

LONDON. — **British Museum Exhibit of Rembrandt Etchings.** — On March 1, 1899, the British Museum opened an important chronological exhibit of Rembrandt etchings. Since the acquisition of the Malcolm collection, in 1895, the British Museum possesses a larger number of fine examples of Rembrandt etchings than are to be found in the museums of Amsterdam, Paris, Vienna, or in the collection of Baron Edmund von Rothschild. The catalogue is by Sidney Colvin. In the *Rep. f. K.* 1899, pp. 208-219, W. v. Seidlitz publishes his notes upon this exhibition.

Photographs of National Gallery Paintings. — The Berlin Photographic Company (14, East 23d Street, New York) have issued photo-gravures of the masterpieces of the National Gallery, London. The plates measure 14 x 18 inches. The series will parallel that from the Hermitage and the Prado, by the same firm.

UNITED STATES

BOSTON. — **Photographs in the Public Library.** — The Boston Public Library has been recently gathering a collection of photographs of architecture, sculpture, and painting. The collection already numbers over fourteen thousand photographs, which are mounted, classified, and accessible to the public. (*Am. Arch.* September 23, 1899, p. 98.)

[The Fogg Art Museum of Harvard University, Cambridge, has a similar collection.]

CAMBRIDGE. — **Paintings in the Fogg Art Museum.** — During the year, Mr. E. W. Forbes imported, and deposited in the Museum as an indefinite loan, the following original works: A Florentine *Tabernacolo* in tempera, which is a characteristic, and an exceedingly fine, example of Florentine painting in the fifteenth century — and may be the work of Verocchio or Filippo Lippi; an Adoration of the Magi, of the school of Ferrara, also in tempera, or tempera and oil, and perhaps by Lorenzo Costa; a portrait of a Procurator of St. Mark, in oil color, having the characteristics of the work of Tintoretto. In addition to these, Mr. Forbes has a tempera painting of a Madonna and Child with Saints, by Benvenuto di Giovanni of the school of Siena, which will shortly be added to this collection. The Florentine tempera had been given by a member of the Torlonia family to the Nunnery of the Tor dei Specchi in Rome, where Mr. Forbes purchased it. The portrait of a Procurator of St. Mark was purchased from Count Macchi of Rome, a member of the Priuli family, to which the personage represented belonged. (From the Annual Report of the Curator.)

ABBREVIATIONS

Abh. : Abhandlungen. *Acad.* : Academy (of London). *Am. Ant.* : American Antiquarian. *Am. J. Arch.* : American Journal of Archæology. *Ami d. Mon.* : Ami des Monuments. *Ann. d. Ist.* : Annali dell' Istituto. *Anz. Schw.* : Anzeiger für Schweizerische Altertumskunde. *Arch. Ael.* : Archaeologia Aeliana. *Arch.-Ep. Mitth.* : Archäol.-epigraph. Mittheil. (Vienna). *Arch. Anz.* : Archäologischer Anzeiger. *Arch. Portug.* : O Archeologo Português. *Arch. Rec.* : Architectural Record. *Arch. Hess. Ges.* : Archiv für Hessische Geschichte und Altertumskunde. *Arch. Rel.* : Archiv für Religionswissenschaft. *Arch. d. Miss.* : Archives de Missions Scientifiques et Littéraires. *Arch. Stor. d. Art.* : Archivio Storico dell' Arte. *Arch. Stor. Lomb.* : Archivio storico lombardo. *Arch. Stor. Nap.* : Archivio Storico Provincie Napolitane. *Arch. Stor. Patr.* : Archivio della r. società romana di storia patria. *Athen.* : Athenaeum (of London).

Beitr. Ass. : Beiträge zur Assyriologie. *Berl. Akad.* : Preussische Akademie der Wissenschaften zu Berlin. *Berl. Phil. W.* : Berliner Philologische Wochenschrift. *Berl. Stud.* : Berliner Studien. *Bibl. Éc. Chartes* : Bibliothèque de l'École des Chartes. *B. Ac. Hist.* : Boletín de la real Academia de la Historia. *B. Arch. d. M.* : Bulletin Archéol. du Ministère. *B. Arch. C. T.* : Bulletin Archéologique du Comité des Travaux hist. et scient. *B. C. H.* : Bulletin de Correspondance Hellénique. *B. Inst. Ég.* : Bulletin de l'Institut Égyptien (Cairo). *B. M. Soc. Ant. Fr.* : Bulletin et Mémoires de la Société des Antiquaires de France. *B. Soc. Anth.* : Bulletin de la Société d'Anthropologie de Paris. *B. Soc. Yonne.* : Bulletin de la Société des Sciences historiques et naturelles de l'Yonne. *B. Mon.* : Bulletin Monumental. *B. Arch. Stor. Dal.* : Bullettino di Archeologia e Storia Dalmata. *B. Com. Roma.* : Bullettino d. Commissione Archeologica Comunale di Roma. *Bull. d. Ist.* : Bullettino dell' Istituto. *B. Arch. Crist.* : Bullettino di Archeologia Cristiana. *B. Paletn. It.* : Bullettino di Paletnologia Italiana. *Byz. Z.* : Byzantinische Zeitschrift.

Chron. d. Arts : Chronique des Arts. *Cl. R.* : Classical Review. *C. R. Acad. Insc.* : Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres. *C. I. A.* : Corpus Inscriptionum Atticarum. *C. I. G.* : Corpus Inscriptionum Graecarum. *C. I. G. S.* : Corpus Inscriptionum Graeciae Septentrionalis. *C. I. L.* : Corpus Inscriptionum Latinarum. *C. I. S.* : Corpus Inscriptionum Semiticarum. Δελτ. 'Αρχ. : Δελτίον 'Αρχαιολογικόν. D. & S. Dict. Ant. : Dictionnaire des Antiquités grecques et romaines par Ch. Daremberg et Edm. Saglio, avec le concours de E. Pottier.

Échos d'Or. : Les Échos d'Orient (Constantinople). 'Εφ. 'Αρχ. : 'Εφημερίς 'Αρχαιολογική. Eph. Epig. : Ephemeris Epigraphica.

Fundb. Schwab. : Fundberichte aus Schwaben, herausgegeben vom württembergischen anthropologischen Verein.

Gaz. B.-A. : Gazette des Beaux-Arts.

I. G. A. : Inscriptiones Graecae Antiquissimae, ed. Roehl. *I. G. Ins.* : Inscriptiones Graecarum Insularum. *I. G. Sic. It.* : Inscriptiones Graecae Siciliae et Italiae. *Intermédiaire* : Intermédiaire de chercheurs et des curieux.

Jb. Alt. Ges. L. P. : Neue Jahrbücher für das klassische Altertum, Geschichte und deutsche Litteratur und für Pädagogik. *Jb. Arch. I.* : Jahrbuch d. k. d. Archäol. Instituts. *Jb. Phil. Päd.* : Neue Jahrbücher für Philologie und Pädagogik (Fleckeisen's Jahrbücher). *Jb. Preuss. Kunsts.* : Jahrbuch d. k. Preuss.

Kunstsammlungen. *Jb. V. Alt. Rh.*: Jahrbücher des Vereins von Alterthumsfreunden im Rheinlande. *Jb. Ver. Dill.*: Jahrbuch des Vereins Dillingen. *Jh. Oesterr. Arch. I.*: Jahreshefte des oesterreichischen archäologischen Institutes. *J. Asiat.*: Journal Asiatique. *J. Am. Or. S.*: Journal of American Oriental Society. *J. Anth. Inst.*: Journal of the Anthropological Institute of Great Britain and Ireland. *J. Br. Arch. Ass.*: Journal of the British Archaeological Association. *J.H.S.*: Journal of Hellenic Studies. *J. Int. Arch. Num.*: Διέθνῃς Ἐφημερίς τῆς νομισματικῆς ἀρχαιολογίας, Journal international d'archéologie numismatique (Athens).

Kb. Gesamtver.: Korrespondenzblatt des Gesamtvereins der deutschen Geschichts- und Altertumsvereine. *Kb. Wd. Z. Ges. K.*: Korrespondenzblatt der Westdeutschen Zeitschrift für Geschichte und Kunst. *Kunstchron.*: Kunstchronik.

Lex. Myth.: Ausführliches Lexikon der griechischen und römischen Mythologie, herausgegeben von W. H. Roscher (Leipzig, Teubner).

Mél. Arch. Hist.: Mélanges d'Archéologie et d'Histoire (of French School in Rome). *Athen. Mitth.*: Mittheilungen d. k. d. Archäol. Instituts, Athen. Abth. *Röm. Mitth.*: Mittheilungen d. k. d. Archäol. Instituts, Röm. Abth. *Mitth. Anth. Ges.*: Mittheilungen der anthropologischen Gesellschaft in Wien. *Mitth. C.-Comm.*: Mittheilungen der königlich-kaiserlichen Central-Commission für Erforschung und Erhaltung der Kunst- und historischen Denkmale. *Mitth. Nassau.*: Mittheilungen des Vereins für nassauische Altertumskunde und Geschichtsforschung. *Mitth. Vorderas. Ges.*: Mittheilungen der vorderasiatischen Gesellschaft. *Mon. Antich.*: Monumenti Antichi (of Accad. d. Lincei). *Mon. Mém. Acad. Insc.*: Monuments et Mémoires pub. par l'Acad. des Inscriptions, etc. *Mün. Akad.*: Königlich Bayerische Akademie der Wissenschaften, München. *Mus. Ital.*: Museo Italiano di Antichità Classiche.

N. D. Alt.: Nachrichten über deutsche Altertumsfunde. *Not. Scavi.*: Notizie degli Scavi di Antichità. *Num. Chron.*: Numismatic Chronicle. *N. Arch. Ven.*: Nuovo Archivio Veneto. *N. Bull. Arch. Crist.*: Nuova Bulletino di Archeologia cristiana.

Pal. Ec. Fund.: Palestine Exploration Fund. Πρακτικά: Πρακτικά τῆς ἐν Ἀθήναις ἀρχαιολογικῆς ἐταιρείας.

R. Tr. Eg. Ass.: Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes. *Reliq.*: Reliquary and Illustrated Archaeologist. *Rend. Acc. Lincei.*: Rendiconti d. r. Accademia dei Lincei. *Rep. f. K.*: Repertorium für Kunstwissenschaft. *R. Assoc. Barc.*: Revista da la Asociacion artistico-arqueologico Barcelonesa. *R. Arch. Bibl. Mus.*: Revista di Archivos, Bibliotecas, y Museos. *R. Arch.*: Revue Archéologique. *R. Art Anc. Mod.*: Revue de l'Art ancien et moderne. *R. Belge Num.*: Revue Belge de Numismatique. *R. Bibl.*: Revue Biblique Internationale. *R. Crit.*: Revue Critique. *R. Art Chrét.*: Revue de l'Art Chrétien. *R. Hist. d. Rel.*: Revue de l'Histoire des Religions. *R. Or. Lat.*: Revue de l'Orient Latin. *R. Ép. M. Fr.*: Revue Epigraphique du Midi de la France. *R. Ét. Gr.*: Revue des Études Grecques. *R. Ét. J.*: Revue des Études Juives. *R. Num.*: Revue Numismatique. *R. Sém.*: Revue Sémitique. *Rhein. Mus.*: Rheinisches Museum für Philologie, Neue Folge. *R. Abruzz.*: Rivista Abruzzese di Scienze, Lettere ed Arte. *R. Ital. Num.*: Rivista Italiana Numismatica. *R. Stor. Calabr.*: Rivista Storica Calabrese. *R. Stor. Ital.*: Rivista Storica Italiana. *Röm. Quart.*: Römische Quartalschrift für christliche Altertumskunde und für Kirchengeschichte.

Sächs. Ges.: Sächsische Gesellschaft (Leipzig). *S.G.D.I.*: Sammlung der Griechischen Dialekt-Inschriften. *Sitzb.*: Sitzungsberichte. *S. Rom. d. Stor. Pat.*: Società Romana di Storia Patria. *Soc. Ant. Fr.*: Société des Antiquaires de France. *Soc. Ant.*: Society of Antiquaries. *S. Bibl. Arch.*: Society of Biblical Archaeology, Proceedings.

Θρακ. Ἔπ.: Θρακική Ἐπετηρίς, ἐτήσιον δημοσίευμα τῆς ἐν Ἀθήναις θρακικῆς ἀδελφότητος.

Wiener Z. Morgenl.: Wiener Zeitschrift für die Kunde des Morgenlandes.

Z. D. Pal. V.: Zeitschrift des Deutschen Palestina Vereins. *Z. Aeg. Sp. Alt.*: Zeitschrift für Aegyptische Sprache und Altertumskunde. *Z. Assy.*: Zeitschrift für Assyriologie. *Z. Bild. K.*: Zeitschrift für Bildende Kunst. *Z. Ethn.*: Zeitschrift für Ethnologie. *Z. Mün. Alt.*: Zeitschrift des Münchener Altertumsvereins. *Z. Num.*: Zeitschrift für Numismatik.

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TWO IDOLS FROM SYRIA

[PLATES II, III]

THERE have lately been brought to this country two bronze idols, green with patination, which the Syrian who showed them to me declares were obtained by his brother from a native who found them in the ruins of an old fallen wall of a building some two hours north of Tyre, near a grotto, or cave, at Adlûn, just north of the Nahr el-Kasmîye. The ruin was torn down and he secured these two objects.

The smaller of the two is the familiar nude goddess, so often represented in Oriental art,¹ with hands under her breasts (PLATE II). The height of the figure, omitting the basal projection below the feet by which it was attached perhaps to a column, is 0.15 m. The head is much too large, proportionately to the body, as are also the hands. The ears are peculiarly made, in a rude helix form. The hair is arranged with a braid across the forehead, and a braid behind reaching to the middle of the back, with two curls nearly as long on each side of it. The eye-sockets are made large for the insertion of an eye of glass, or of banded agate like those that have been found, of much larger size, with the inscription of Nebuchadnezzar and the name of the god, Merodach or Nebo, to whose image they belonged (J. Menant, *Pierres Gravées*, II, p. 142). One such eye, of Nebo, is among the treasures of the Metropolitan Museum in New York. On the top of the head appears the

¹ Perrot and Chipiez, *History of Art in Chaldea and Assyria*, vol. I, p. 83; L. P. di Cesnola, *Descriptive Atlas of the Cypriote Collection*, vol. II, pls. ii, iii; Schliemann, *Mycenae and Tiryns*, figs. 267, 268; *ib.*, *Ilios*, fig. 233.

mark of the opening in the mould through which the molten metal was poured in. A similar mark is seen on the head of the male deity.

The other is a male deity (PLATE III), nearly 0.24 m. in height from the head to the foot. The body is dressed in a close, short garment which reaches to the knees. The waist is encircled with a wide belt, or girdle, which appears to be tied together in front with a twisted cord, the ends of which hang down the length of the skirt of the garment. The eye-sockets were doubtless filled with eyes. The beard is short and straight. The ears are of the same curious helix pattern as in the case of the goddess. The hair is arranged in the same way as in the case of the goddess, except that there are three curls on the back of the head on each side of the somewhat longer central braid, while a fourth curl on each side falls down from behind the ear in front over the shoulder. Within the closed hands there is an open space, which indicates that they held each some object, like a dove, or a vase, or a mace or sceptre. We can even imagine a Moloch furnace held on the two hands. The long curls and braids of the two figures are paralleled in the bronzes from Teti and Uta, in Sardinia, figured by Perrot and Chipiez (*History of Art in Sardinia*, etc. vol. I, pp. 60, 65, 67, 68), in which now one or two long curls, and now a long braid falls down in front of the body from behind the ears, although no drawing is given of similar curls or braids down the back. There were Phoenician settlements in Sardinia, and Phoenician influence is probable in these bronzes. Earthenware statuettes from Phoenicia itself show a similar arrangement of the hair, as in one from Cornus (Perrot and Chipiez, *Phoenicia and Cyprus*, vol. II, p. 25), and in a votive statue (*ibid.* p. 34). A similar arrangement of the hair appears on some of the Phoenician type of statues from Cyprus in the great Cesnola Collection in the New York Metropolitan Museum. Such are three fine life-size stone statues, and a number of earthenware statuettes (*A Descriptive Atlas of the Cesnola Collection*, vol. I, pls. vii, viii, ix, xx, xxi; see also A. P. di Cesnola's *Salamina*,

p. 228); but I have not met with any bronze statuettes of the Phoenician period in which this feature is so elaborately marked.

The extension of the worship, under various names among different peoples, of the nude goddess with hands supporting the breasts, as found in this bronze idol, is one of the most interesting facts in the history of the religion of Western Asia. What her origin was it is as yet impossible to tell. We know it was not Egypt, and we naturally turn to the other chief source of civilization and religion in Babylonia. And yet it is not clear that she was any more an originally Babylonian deity than was Ramman, who, we know, came from the Syrian region. Every advance in knowledge tends to enlarge the area, from Elam to the Mediterranean coast, over which extended a civilization of a parallel antiquity to that of Babylonia.

With considerable plausibility Lenormant (*Berosé*, p. 119) concludes that the Babylonian name of the nude goddess with hands supporting her breasts was Zarpanit, or Sarpanitu ('silver shining one'), to whom the scribes gave, from her function, the punning, or folk, etymology of Zir-banitu, meaning 'the producer of offspring.' Neither Sarpanitu nor her mightier consort, Marduk, appears in the literary sources before the time of Hammurabi, perhaps 2300 B.C.; nor does the nude goddess under this form appear any earlier in art, although a nude goddess holding thunderbolts and standing on a dragon appears in primitive Babylonian art (Ward, 'Bel and the Dragon,' *American Journal of Semitic Studies*, XIV, pp. 95, 104) as consort of the elder Bel, with whom Marduk was identified when Babylon, of which he was tutelary god, became paramount. It may even be that Sarpanitu, if that was her name, was an introduced deity, perhaps from Syria, like Ramman. It was from Hani, the region between the Bay of Alexandretta and the Euphrates, that Agum, about 1800 B.C., brought with great honor, and without war, the images of Marduk and Sarpanitu (Jensen in Schrader's *Sammlung von Assyrischen und Babylonischen Texten*, III, p. 139). This nude god-

dess, so common in Middle Babylonian art, hardly enters into the purely Assyrian art ; but her figure constantly appears in what goes under the name of "Hittite" art, a loose term which includes for a period of fifteen hundred years or more the region north and west of Mesopotamia as far as the Mediterranean, and as far as, or even merging into, the Mycenaean region. She often takes the purely Babylonian form, and then appears to be identical with the Hittite nude goddess. In a relief from the Hittite capital Carchemish (Ward, 'Hittite Gods in Hittite Art,' *Am. J. Arch.* 1899, p. 13) she is nude, holding her breasts, but winged. For other nude forms see figs. 28, 29, 33-37 in the article cited above. Cypriote forms are indicated in the reference above (p. 289, note) to L. P. di Cesnola's *Descriptive Atlas*.

While it is easy to recognize the Oriental Aphrodite in the female figure, it is not easy to identify the god with any particular Canaanite deity. The two idols must have come from the same workshop, and they apparently represent a god and his wife, a divine couple, as if Baal and Astarte. There is no sign of either Egyptian or Greek influence. We must attribute them to a Canaanite or Phoenician origin. A Hittite influence is hardly possible. I do not know any near parallel to the god, and must look to scholars better acquainted with Phoenician or Syrian art for comparison with any similar objects.

WILLIAM HAYES WARD.

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PRUDENTIUS COMMENTARIES

I

THE Vatican Library contains twenty-six manuscripts of Prudentius: the list is given by Dressel in the preface to his edition, Leipzig, 1860. Of these, the most valuable for their commentaries are: Reg. 321, which besides being the only complete Prudentius in Italy has some valuable explanatory matter; Pal. 1715 and 235, containing not the poet's text, but fragments of what must have been an extensive commentary on the author's works.

Pal. 1715 is a miscellaneous manuscript in two parts, the latter being a sort of phrase-book, synonyms, etc.: its writing is a beautiful *Saec. XI* minuscule. Part I, on leaves 1-15, contains the glosses which I have transcribed.

This codex is 175 mm. long by 105 mm. wide, in single columns, with twenty-three lines to the page; writing *Saec. X-XI* minuscule, and of German origin. Besides other interesting facts about this manuscript, it should be noted that it contains some O.H.G. glosses, which need not be repeated here, as they have already been published by Steinmeyer and Sievers, *Althochdeutsche Glossen gesammelt*, II, Berlin, 1882.

Even without these glosses the German origin of the codex would be indicated by the following orthographic peculiarities:

b used for *p*:

I Symm. 561: Blebiclas = plebicolas.

Cath. VII, 157: bullati = pullati.

Perist. II, 514: simbuuium = simpuium.

p used for *b* :

Hamart. 868, Palla confused with German Ball (?)

Perist. X, 187 : lespius = Lesbius.

c used for *g* :

Exordium : cliconium = Glyconium. Here, however, the scribe may have had before him a *G* with short tail, which is easily mistaken for *C*.

Apoth. 439 : Cortinia = Gortynia. Here the same possibility lies before us.

g used for *c* :

Perist. X, 240 : deligatos = delicatos.

I Symm. 184 : gretensis = cretensis.

—— mediogritas = mediocritas.

d used for *t* :

Apoth. 433 : Adlas = Atlas.

t used for *d* :

Cath. III, 29 : quibustam = quibusdam.

II Symm. 355 : quastam = quasdam.

A curious case of *t* for *c* is found in *Hamart.* 143 morditus = mordicus. Other orthographical mistakes found in this codex are too common to call for special mention.

Several times the scribe uses the open *a* in the body of a word ; written attached to *m* or *n* below it is quite common. Long *i* similarly attached is also in frequent use.

The most remarkable palaeographical peculiarities of our scribe are the use of *ʃ* = *r* and *ʒ* = *k*, and the omission or insertion of *g* between two *i*'s or between *i* and *e*, as in

I Symm. 373 : subiit = subigit.

—— 507 : uigeto = uieto.

II Symm. 294 : uigetum = uietum.

Cath. V. 448 : regi is corrected by erasure to rei.

Our scribe quotes St. Jerome, St. Isidore, and Servius :

Cath. VII, 139 : *flagellis m. germinis*. Alli volunt quod edera sit. Sed sanctus Hieronimus dicit quod siseio sit : siseio autem genus est arboris habens simile edere folium.

— *III, 29* : nam ut Isidorus ait strophium. est aureum cingulum cum gemmis paratum quibusdam, etc. (*Etymol. XIX, 33, 3*).

I Symm. 388 : Iouis infernalis id est orci quod et seruius tangit dicens quosdam homines uelle iouem cestem, (l. caelestem) iouem marinum, iouem stigium ut solus super omnia fieret tamen mutato nomine.

The commentary frequently shows a surprising ignorance of Roman history and classical mythology, *e.g.* :

I Symm. 527 : Cethego id est rege quodam.

II Symm. 51 : Berecynthian mother is confused with Diana ; perhaps a last reëcho of pagan syncretism.

Perist. X. 292 : fidias (= Phidias) id est fidala (= English fiddle).

In a very large number of cases the scribe gives the *lemmata* in the nominative of nouns, and in the infinitive or first person indicative present of verbs : so often, in fact, does this occur that a collation with Dressel's text would be valueless. Instead of such collation, here follows a selection of the most important or most characteristic comments occurring in this manuscript.

Praef. 8 : **Toga**, uestis militum, et dicta toga a tegendo et est toga sicut in consuetudine habebatur uestimentum quo in foro amicti sunt milites. (Isid. *Etymol. XIX, 24, 3*. Toga dicta, quod velamento sui corpus tegat, atque operiat. Compare also Varro *ap. Non. 541, 2*.)

Cath. III, 18 : **Seria**, grauia utilia necessaria et honesta dicuntur, et sunt seria dicta quod non festinanter ; sed sero, id est tarde fiant. Nam sicut serus (id est tardus) a sera (quod est uespera) dicitur, ita a sero, serius appellatur, et est mobile, serius seria serium.

— *28* : **Cum dactylico strophio**, id est cingulo. Nam ut Isidorus ait (*Etymol. XIX, 33, 3*) strophium est aureum cingulum cum gemmis paratum ; quibusdam autem aliis auctoribus placet strophium uel coronam esse uel hoc ornamentum insigni habebatur in capitibus sacerdotum. Illud ergo latine stropus uocatur. (Festus, 313 *M*, *s.v. stropus*.)

Cath. III, 81: **Lyram** dicunt ἀπὸ τοῦ λυρεῖν id est a varietate uocum, eo quod diuersus sonos efficiat. Lyram primus Mercurius inuenit hoc modo. Cum regrediens Nilus in suos meatus, uaria in campis reliquisset animalia, relicta etiam testudo est. Quae cum patefacta (l. putrefacta) esset et nerui ei remansissent, extenti intra corium percusi (l. percussi) a Mercurio sonitum dederunt; ad cuius speciem Mercurius lyram fecit et Orfeo tradidit. (*Isid. op. cit.* III, 21, 8.)

— 90: **Armonia** est cum fistulae per ordinem positae organum legitime tenent. Nos autem dicimus armoniam modulationem uocis et concordiam plurimorum sonorum. (Cf. *Isid. op. cit.* III, 15–21, especially III, 19, 2. Harmonia est modulatio uocis, et concordantia plurimorum sonorum.)

Perist. II, 518: **Luperci**, id est Panes (l. Panis) sacerdotes, dicti quod lupos a pecoribus arceant: hi sunt pastores. (Cf. *Serv. in Aen.* VIII, 343.)

— XI, 45: **Rostra**, id est loca ubi rostra ex aere Antonianarum nauium Romae posita sunt. **Suburra**, id est proprium nomen loci Romae ubi nunc coria parantur.

Apoth. 494: **Zoroastres**, idem dicitur Mesram qui auctor ydolatriae exstitit.

Hamart. Praef. 7: **Bidentes**, id est ones qui infra bimatum duos dentes eminentiores habent. (*Serv. in Aen.* IV, 57; *Gell.* XVI, 6; *Isid. op. cit.* XII, 1. 9.)

— 403: Gymnus graece nudus dicitur; inde **Gymnosophista**, quia penitus ab amore sophiae res seculares spreuit. (This etymology is traditional, but the explanation, *quia* — *spreuit*, betrays a monkish commentator.)

Perist. X, 84: **Bellum diuis ceu gigantes inferant**. Gigantes contra deos pugnaverunt ut caelum rescanderent; tunc fulmine Iouis percussi, aethra monte abruuntur.

— 140: Floccum dicimus capillum at hic pro inutili ponitur.

— 155: Ante **carpentum** id est currum **Idaeae** Matris id est Opis quae in Yda monte colitur quia Athlantis filia Celei uirgo pulcherrima fuit. Quae responso accepto a diis ut uitam cum uirginitate perduceret omnibus se petentibus curule certamen inposuit, ut quisquis eam praecurreret illam in coniugio habuisset. Si non, ipse decollaretur. Accidit ut Ippomenes qui malum aurem olim de horto Veneris sumptum habebat, cum ipsa currendo illa uelocior cursu eum praecurrit. At ille malum aureum iacente quae desiderio auri tardata, ipse eam uitauit. Tunc Dianae instinctu ambo in leones conuersi sunt trahentes currum in quo uertebatur (l. uehebatur) Diana. (Cf. *Serv. in Aen.* III, 113, and van Staveren's note to his *Auctores Mythographi Latini*, p. 306.)

Perist. X, 156: **Lapis Nigellus**, qui in illo uehiculo ferebatur pro simulacro; quem praeuendo cum nudatis pedibus cum certamine usque ad Almonem fluuium Italiae perducebat ibique ludos et sacrificia exercebat.

— 188: **Delfosne pergam**, id est locum ubi ara Apollinis quam filius eius Lespius qui alio nomine laquearius dicitur, fabricauit. Hic autem Lespius cytharoedus optimus fuit qui cum Tharento Corrinthum cum multis opibus peteret, et uideret sibi in a nautis tendi (l. sibi a nautis intendi)

insidias petit ut cythara paululum caneret. Ad cuius sonitum dum delfi (l. delfines) uenissent, exculsit (l. excussit) se super unum, et ita imminens uitauit periculum. (Arion is meant; cf. *Auct. Myth.* 322-324.)

Perist. X, 188-189: **Sed uetat palestrici conrupta effebi.** Yacinctus puer quem Boreas et Apollo amauerunt. Sed ille magis Apollinem dilexit, cumque sub tripoda eius iaceret, priusquam eam Apollo uiciauit, iratus Boreas mensam sub qua positus erat monebat quae super eum cecidit sub qua mortuus est. Tunc Appollinis miseratione quocumque eius sanguinis flos in eius nomine nascebatur. (Cf. Serv. in *Buc.* III, 63; Plin. *N. H.* XXI, 11, 38, 66.)

— 193: **Conductus idem pavit.** Apollo exutus diuinitate ob occisos gygantes qui fulmina Iouis fabricauerunt, pastor factus est Admeti regis iuxta Amfrisum fluiuium quod orpsydia oues uellere exiit, ibique tela perdidit. (Cf. *Myth.* 113; Lact. *Plac. in Stat. Th.* V, 44, VI, 375; Serv. in *Aen.* VII, 761; Porph. in *Hor. Carm.* I, 10, 9; Ovid, *Met.* X, 162-219.)

— 197: **Puer obstat Gallus,** id est Attis quem Diana in coniugium petiit qui dum se ita facere simularet ipsa in amorem eius ardens cum amplexu eum castrauit et mox perditum fleuit. (For the usual version of this myth vid. Serv. *ad Aen.* IX, 115.)

— 206: **Quid aureorum conditorem temporum,** id est Saturnum qui ut fama est, filium fugiens in Italia latebatur (sic). Conditor aureorum temporum ideo dicitur quia sub illo omnium errantium syderum fuit concursus: aut quia sub illo aurea dicunt esse secula. (Verg. *Aen.* VIII, 319, and Serv. *ad locum*, Ovid, *Met.* I, 89 ff.)

— 213: **Lemnius,** id est Vulcanus a Lemno insula ubi nutriebatur qui quia Martem cum Venere ligauit diisque ostendit idcirco inter se tam magna iniuria sunt (l. inimicitia).

— 235: **exoletum,** id est immundum uel iuuenem. Ganimedes Trois filius speciosus ab Ioue adamatur per aquilam armigerum eius raptus in coelum, minister deorum factus est ut aquam manibus eorum funderet. (Cf. Festus, p. 44; Verg. *Aen.* I, 28, and Serv. *ad loc.*; Lact. *Plac. in Stat. Th.* I, 540.)

— 240: **neaera,** id est Omfale. Hercules enim amavit Omfalen; qui (l. quae) eum persuasit et coli deligatos enervare contractus, et lasciuianti pollice fusi teretem rotare uertiginem. (*Stat. Theb.* 641-645 and Lact. *Plac. ad locum.*)

— 257: **Placet sacratus.** Esculapius filius Apollinis optimus medicus qui dum magicis suis artibus unum hominem suscitareret serpens in spina eius inuentus est. (Cf. *Myth. Script.* 928; Lact. *Plac. in Stat. Th.* III, 398.)

— 512: **Bombix,** id est uermis, ex quo sericum textitur. (Cf. Isid. *op. cit.* XVI, 5, 8.)

— 611-12: **Mauortiam lupam.** Rea Silvia Numitoris regis Albanorum filia, a morte compressa geminos edidit quos Amulius in Tiberim proiecit; hos etiam fluiuius in siccum uiuos exposuit. Cum ad uagitum lupa uenisset admotis uisceribus eos aluit idcirco mauortia lupa dicitur. (Liv. I, 4, 6.)

Perist. X, 618: **Gnosiam capellam**, id est Greciam (l. Graecam) capellam: quia Iuppiter in Dictæo monte Graeciae lacte caprae a curetibus et corribantibus nutritus est. (Cf. *Scrip. Myth.* 245-246.)

— 881: **Libet experiri Lerna**. Sicut traditur Lerna lacus est Archadiae in quo fuit ydrus, quo si quisque unum caput absumeret, tria succrescerent. Ad quem Hercules ueniens, Eulao (l. Iolao) comitante quot capita Hercules abscidebat tot socius eius combussit. Sic demum interfecta est belua. (Cf. *Serv. in Aen.* VI, 287.)

— 1015: **Gabino cinctu**. Gabini Romanis uicini fuerunt ex quibus magnam partem cerimoniarum sumpserunt.

I. Symm. 57: **Tuscis namque ille puellis**. Saturnus (l. Saturnus) cum Falerna nympha concubuit, quibus Opis (l. Ops) superueniens, ille ne agnosceretur ab ea se in equam mutauit: ideo dicitur Tuscis adhinnire puellis. (*Serv. in Georg.* III, 93.)

— 89: **Nec non Thessaliae doctissimus** qui magicæ artis ualde peritus erat: et uirgam atque serpentem in manu tenebat: quique homines resuscitasse magicis suis artibus dicitur atque necare. (*Verg. Aen.* IV, 242, and *Serv. ad locum*, *Isidor. op. cit.* XVII, 6, 18.)

— 106: **Scortator nimius**, id est Priapus qui ob scortum nimium de patria pulsus est, et in Italiam fugit deusque hortorum factus est. (Cf. *Verg. Georg.* IV, 110, and *Serv. ad locum*.)

— 117: **Argo**, id est nauis. Hercules cum in Ispaniam ire uellet ad Gerionem [*ad*] mare ueniens nullam nauem inuenit. Ille alnum excidens ipsumque conscendens mare transfretauit.

— 118: **Nec maris erubuit Nemea sub pelle foueri**. Pallanthea Euandri filia fuit cum qua Hercules concubuit sub pelle leonis qui in Nemea silva captus est.

— 139: **Hanc iubet assumptam neeram**, id est concubinam. Cum Liber pater Ariadnem Minoys regis Cretæ in coniugium accepisset, cui Vulcanus XII geminis insignitam coronam fecit in honorem Liberi quam mulieri tradidit atque inter astra mutauit. (*Résumé of Myth. Script.* pp. 432-433.)

— 191-192: **Quos fabula manes nobilitat**, id est deos infernales dicit. Ancus pronepos Tulli fuit et dictus Ancus quia incuruum brachium a cubitu habuisse dicitur. (*Vid. Paul, op. Festi*, p. 19.)

— 234: **Maculoso corpore picus**. Picus filius Saturni, regnauit in Italia, cui uxor carmentis nympha fuit. Is cum assidue uenationes exerceret, a Circe Solis filia adamatus est quæ eum in coniugium petiit, qui cum petitum ei negaret concubitum transfiguratus est ab ea in auem sui nominis, ideo maculosus dicitur. (Cf. *Isid. op. cit.* XII, 47; *Serv. in Aen.* VII, 190.)

— 260-261: **Inter Fescennina**, id est inter carmina nuptialia (Fescennini uersus sunt) quæ canebantur in nuptiis et dicti fescennini ab urbe Fescenna: siue quia fascinum pellunt. Aliter fescenninus deus nuptiarum. (*Serv. in Aen.* VII, 695; *Paulus, ap. Fest.* 85 and 86; *Fascinus* a god, in *Plin. N. H.* XXVII, 4, 7, 39.)

I. Symm. 359: **Placatur uaccae** quae immolabatur ei. In superis uocatur Diana, in terra Lucina, in inferno Proserpina. (*Myth. Scrip.* 908; *Serv. in Aen.* IV, 511.)

— 388: **Iouis infernalis**, id est Orci quod et Seruius tangit dicens quosdam homines uelle Iouem cestem (l. caelestem), Iouem marinum, Iouem stygium, ut solus super omnia fieret, tamen mutato nomine. (In *Aen.* III, 134?)

— 547: **Exuuias pontificales**, quibus ydolis sacrificabant.

— 627: **Saturnique senis lapides**, quia sub illius tempore lapides serebantur; inde nati sunt homines. (Ovid, *Met.* I, 382 ff.)

II Symm. 28: **Rutilus pennas** explicuit uictoria, quia propter celeritatem cum pennis pingebatur.

— 55: **Raptarit iuuenem**, id est Yppolitum. Theseus Egei filius Fedram Minoy et Pasiphae filiam duxit uxorem, quae cum Yppolitum priuignum eius de stupro interpellasset, ille noluit consentire et ipsa apud patrem suum accusabat quasi ei uim inferre uoluisset. Tunc Theseus Neptunum rogans (l. rogauit) ut a filio eius pennas (l. poenas) exigeret. At Neptunus dum Yppolitus currum suum cum equis ad lucum Triuia agitaret, phocam contra equos mittens (l. misit) qui turbati iuuenem de currum (*sic*) iecerunt et de equorum strepitu mortuus est. Tunc Diana eius castitate commota, reuocauit eum in uitam per Esculapium medicum. (Cf. *Myth. Script.* pp. 111–112; *Serv. in Aen.* VI, 445, VII, 761; *Lact. Plac. in Stat. Th.* V, 444.)

— 221: **Graia quas Pallade**. Pallade et Neptuno certante de Athena (*sic*) ciuitate utrum de Neptuno seu de Minerva uocaretur, dii ceteri dicebant qui melius munus mortalibus optulisset eius nomine uocaretur ciuitas. Tunc Neptunus percusso tridenti litus equum protulit; Minerva fixa asta oleum creauit, quae res melior quia pacem significat. Inde inuentrix oleae dicitur. (Cf. *Serv. in Aen.* VIII, 128.)

— 353: **Praedam sumpsit Athenis** dum Romam (l. Romani) Athenienses inuaderent et spolia multa inde auferrent, aliqua sacra ex eis auferabant.

— 354: **Quosdam canini capitis**, id est cum Caesar Augustus contra Cleopatram pugnaret et eam superaret, simulacra eius abstulit quod canino capite fuerat.

II

Cod. Vat. Reg. Lat. 321 is a handsome parchment manuscript, containing the complete works of Prudentius, preceded by a few elegiac lines, a very brief life of the poet, a list of his works, the Vita composed by Gennadius, and marginal notes. This Codex measures 315 × 225 mm.; its flesh and hair sides are much alike, which, with the fact of its presence in

Queen Christina's collection, makes its French origin very likely. It has sixty-six leaves, with ten in the first quire and eight in the others; it has about thirty-eight lines to the page; the columns are two or three, according to the verse employed. Its most remarkable palaeographical characteristics are an open *a*, which is not quite as frequent as the usual minuscule form; the sign *ſ* is used for the syllable *et*, even when the letters belong to two different words. On the whole, the Codex dates from early in the tenth century.

After I had copied the prefatory parts of the manuscript, and many of the glosses (which are in a very fine hand, perhaps *saec. X exeunt.*, and rubbed or yellow with age), the condition of my eyes forced me to relinquish this work. The glosses are mostly verbal; the best of them are quoted by Dressel, who, however, sometimes assigns them to the wrong codex; furthermore, his report of the text readings is not always accurate. Hence, the manuscript is worth a recollation. I hereto append those extracts that are most likely to interest students of Prudentius.

Fol. 1, *verso*:

Haec lege qui rectum fidei uis dinoscere callem
 Quique heresum sollers, spicula uafra fugis.
 Hic tibi peccati uxoris pandetur origo
 Hic noua uis animi, ministra ueterna fugans
 Funditur ydoli uirtus euersa iacebit.
 Ac penitus tetri. lingua teretur ydri.
 Inclitus hic martyr elingui concinet ore
 Heroumque acer rite canetur agon,
 $\overline{\text{Xp̄t}}$ (Christi) sonis ymnis libri prima ora resulta $\overline{\text{N}}$
 Funalis uario musa canore boat!
 Nunc tu gaeso frequens mellito gutture ructes.
 Hunc uerses animo moribus hunc teneas
 Meque imo in caelum suspiria pectore fundas.
 Pro me proque meo qui notat haec famulo.

Then follow these words :

Aurelius prudentius clem . . . s iste partim in consulatu partim in familiaritate principis sic ipse hostendit secularibus litteris. Lvii annis operam dedit. Sed postea illud ex toto amittens ad diuina metra componenda se

contulit. Fecit enim multos libros unum quem praetitulauit dirocheum id est duplicem refectionem nocans de ueteri et Nouo [Testamento] et alios quos prae manibus habemus si perscrutari placet.

The last clause of the preceding sentence prepares us for the list of the poet's works; their names are in capitals, with interlinear glosses.

trinomius fuit

AURELI. PRUDENTII. CLEMENTIS

qui consulatum ispaniensis ciuitatis messaliae bis optinuit

VIRI CONSULARIS LIBRI NUMERO

liber in laudi dei cuiusque. Cata secundum mera dies

NOVĒ · CATEMERINON

liber deitatis quomodo homines in deitatem transferuntur

APOTHEOSES

liber de initio peccati. Mortalis peccator. Amartian. peccatum

AMARTIGENIA

liber de anime pugna. Psiche anima. Machia pugna

PSICHOMACHIA

quendam hereticum

CONTRA SYMMACHVM

TI T CTRASYMMACVM

Liber de beato romano martyre

ROMANVS

De laudibus Martyrum

PERISTEPHANON

TITVLI ISTORIARV

Then comes the extract from Gennadius, with some marginal and interlinear glosses, which are quoted below. The text in comparison with that of Dressel (note on page I of his *Prolegomena*) shows the same archetype, but is a much better copy.

GENNADIUS

Gennadius presbyter in Catalogo uirorum illius trium huius prudentii sic meminit. Prudentius uir saecularis litteraturae eruditus. composuit dirocheum de toto ueteri

- 5 et nouo testamento personis exceptis
 Commentatus est et in morem grecorum exameron
 de mundi fabrica usque ad conditionem
 primi hominis et in praeuaricatione eius
 Composuit et libellos greca appella
 10 tione praetitulauit. ΑΡΩΘΗΩCIC
 Psychomachia amartigenia idest de
 diuinitate de compugnantia animi
 de origine peccatorum. Fecit et in laude
 martyrum sub aliquorum nominibus
 15 inuitatorium ad martyrium librum unum
 et hymnorum alterum. Speciali tamen
 conditionem aduersus symmachum
 idolatriam defendentem et quorum lectio
 ne agnoscitur palatinus miles fuisse

NOTES

- Line 1. *illustrium*: illustris nobilis uel clarus.
 3. *saecularis litteratura* quia per Lvii annos mundi amoribus fuit retentus
 uel quia plurimum poemata legit.
 4. *dirocheum* dicitur duplex refectio et ideo sic titulatur quia de uiteri et
 nouo testamento compositum habet.
 5. (*exceptis*) id est ab inuicem separatis.
 6. (*exameron.*) Exa graece VI mera dies inde exameron opus sex dierum.
 11. (*psychomachia.*) Psiche graece anima machia pugna hinc psychomachia
 pugna animae cum uitiiis.
 11. *amartigenia de peccato.* Amartian peccatum.
 16. *hymnus* laus dicitur.
 18. *Idolatria* idea forma latria seruitus. Inde idolatria formae seruitus.

In some cases the marginal glosses are correlated with the text by means of catch signs; these are often the Greek majuscule alphabet Α-Ω, and then repeated; sometimes, however, the scribe uses a series of arbitrary marks not to be mistaken for letters. These latter seem to follow no definite system.

JOHN M. BURNAM.

THE TRIBUNAL AURELIUM

THE curved terrace at the back of the Rostra in the Roman Forum, between the Arch of Severus and the Temple of Saturn, has received various names, most often that of Graecostasis or Graecostadium. But this name is based on little solid proof, and is used with hesitation, if at all, by the latest writers, and I venture to suggest that the monument is something quite different.

Among the monuments in the Forum mentioned by ancient authors is the Tribunal Aurelium. Some writers, on account of a passage in Cicero,¹ have located this near the Temple of Castor. Cicero's words are: "Isdemque consulibus inspec-tantibus servorum dilectus habebatur pro tribunali Aurelio nomine collegiorum, cum vicatim homines conscriberentur, decuriarentur, ad vim, ad manus, ad caedem, ad direptionem incitarentur. Isdemque consulibus arma in templum Castoris palam comportabantur, gradus eiusdem templi tollebantur, armati homines forum et contiones tenebant." But, as Jordan² points out, it does not follow from the references that the tribunal was in that region. Most of those who have written on the subject have considered it a temporary wooden platform, although there is nothing to show that it was not a permanent structure of masonry.³ The word 'tribunal' seems to have been applied both to the raised platform on which the seat of the magistrate was placed, and to the whole space occupied by a court, the centre of which was the 'tribunal' of the presiding

¹ *Pro Sestio*, 15, 34.

² *Topographie der Stadt Rom*, I, 2, p. 405.

³ Cf. an inscription from Ostia, Orelli-Henzen, 3882: "tribunal in foro marmoreum fecit."

officer. Tribunals of the first kind, used by magistrates of various grades, were doubtless often small wooden platforms, while those of the second kind were sometimes permanent, as in the basilicas.

Although there is no direct evidence to prove that the curved terrace is the Tribunal Aurelium, the hypothesis that it is finds strong support and explains the form and position of a monument which hitherto has not been satisfactorily explained. Nichols¹ comes near to solving the problem when he says that the description of the tribunal in Asconius, quoted below, corresponds with no place so well as with the site of the curved terrace, and "the Tribunal Aurelium was built with a permanent platform and steps, which were probably of stone or marble; and the tribunal of the Comitium may have been similarly constructed,"² and again, "It is probable that, in earlier times, this end of the Comitium had been the site of the Praetor's tribunal."³ However, he concludes that the terrace is the Graecostadium of the later empire, and that the Tribunal Aurelium was near the Temple of Castor.

The tribunal received its name either from Gaius Aurelius Cotta, consul in 75 B.C., or from his brother, Marcus Aurelius Cotta, consul in 74 B.C. So far as the classical references are concerned, either date might answer. It seems more probable, however, that a suitable place for hearing law suits was provided by Gaius, a noted advocate and lawyer, who was prominent in public affairs long before his consulship, and proposed a number of laws concerning the powers of tribunes and concerning trials, than by Marcus, who is known to us chiefly from his connection with some unfortunate events in the provinces. It is to be noted that Cicero, the only ancient writer who mentions the tribunal by name, admired and praised Gaius and made him an interlocutor in the *Brutus*. These Cottas were uncles of Julius Caesar.

The passages bearing upon the question are :

Cic. *pro Sestio*, 15, 34, quoted above. It was spoken in 56 B.C., and refers to Piso and Gabinius, consuls in 58 B.C.

¹ *The Roman Forum*, p. 193.

² *Op. cit.* pp. 81, 195.

³ *Op. cit.* p. 185.

Cic. *in Pisonem*, 5, 11: "Pro Aurelio tribunali ne conivente quidem te, quod ipsum esset scelus, sed etiam hilarioribus oculis, quam solitus eras, intuente dilectus servorum habebatur ab eo, qui nihil sibi umquam nec facere nec pati turpe esse duxit." This was spoken in 55 B.C., and also referred to the same events in the year 58 B.C.

Cic. *de domo sua*, 21, 54: "Cum in tribunali Aurelio conscribebas palam non modo liberos, sed etiam servos ex omnibus vicis concitatos, vim tum videlicet non parabas," etc. This was spoken in 57 B.C. of the events of 58 B.C.

Cic. *pro Cluen.* 34, 93: "Gradus illi Aurelii tum novi quasi pro theatro illi iudicio aedificati videbantur; quos ubi accusator concitatis hominibus complerat, non modo dicendi ab reo, sed ne surgendi quidem potestas erat." This was spoken in 66 B.C., and referred to the condemnation of C. Junius in 74 B.C. Here *theatro* should be translated literally, 'Those Aurelian steps, at that time new, seemed built like a theatre for that trial.'

Cic. *pro Flac.* 28, 66: "Sequitur auri illa invidia Judaici. Hoc nimirum est illud, quod non longe a gradibus Aureliis haec causa dicitur. Ob hoc crimen hic locus abs te, Laeli, atque illa turba quaesita est; scis quanta sit manus, quanta concordia, quantum valeat in contionibus. Sic summissa voce agam, tantum ut iudices audiant; neque enim desunt, qui istos in me atque in optimum quemque incitent; quos ego, quo id facilius faciant, non adiuvabo." This oration was delivered in 59 B.C.

Asconius *in Milon.* 41 (148): "Primo die datus erat in Milonem testis C. Causinius Schola. . . . Quem cum interrogare Marcellus coepisset, tanto tumultu Clodianae multitudinis circumstantis exterritus est, ut vim ultimam timens in tribunal a Domitio reciperetur. Quam ob causam Marcellus et ipse Milo a Domitio praesidium imploraverunt. Sedebat eo tempore Cn. Pompeius ad aerarium perturbatusque erat eodem illo clamore: itaque Domitio promisit se postero die cum praesidio descensurum, idque fecit. Qua re territi Clodiani silentio verba testium per biduum audiri passi sunt. . . . Dimisso circa

horam decimam iudicio T. Munatius pro contione populum adhortatus est, ut postero die frequens adesset et elabi Milonem non pateretur iudiciumque et dolorem suum ostenderet euntibus ad tabellam ferendam. Postero die . . . clausae fuerunt tota urbe tabernae; praesidia in foro et circa omnis fori aditus Pompeius disposuit; ipse pro aerario ut pridie consedit saeptus delecta manu militum . . . Cicero cum inciperet dicere exceptus est acclamatione Clodianorum, qui se continere ne metu quidem circumstantium militum potuerunt. Itaque non ea qua solitus erat constantia dixit."

This explains the words of the orator addressed to Pompey (25, 67): "Non iam hoc Clodianum crimen timemus, sed tuas, Cn. Pompei (te enim appello, et ea voce, ut me exaudire possis) tuas, inquam, suspiciones perhorescimus." The trial was held in 52 B.C.

It is fair to make the assumption, necessary to this argument, that the Gradus Aurelii were a part of the Tribunal Aurelium, because we learn from the only writer who calls them by name that the two existed at the same time, that the steps were part of some tribunal, and that on the occasions of which he speaks each was used by a crowd of men for an unlawful purpose. Writers on topography agree that they were the same. From the passages, then, it appears that this tribunal was important enough and permanent enough to receive a name, that it was in use at least sixteen years, perhaps twenty-two years, if it is of this that Asconius speaks, and that some part of it consisted of steps which reminded Cicero of a theatre.

In the so-called Graecostasis we find a monument which answers well to what we know of the Tribunal Aurelium. Although the south half of the wall and terrace has been rebuilt in late times, it is plain that it was originally built before the removal of the Rostra, or at least before the Rostra received its present form, which Hülsen attributes to Augustus, for it was almost completely hidden by the latter. The curved marble plinth, with its travertine support, was cut into by that of the Rostra, which passed on the outside.

The use of Porta Santa marble as facing for the outside does not exclude the possibility of a date as early as 44 B.C. The Romans must have been familiar with the use of colored marbles long before their first recorded use in Rome, for the Greeks used them for decoration as early as the fifth century B.C. The imitation of colored marbles in the wall paintings at Pompeii, some of which are of the second century B.C., indicates the early use of the marble itself. From Pliny we learn that the importation and use of colored marbles had begun more than a quarter of a century before 44 B.C. He is discussing the extravagant adornment of private houses, and mentions the use of marbles in public buildings only incidentally, although he says that the private practice followed the public.¹ About the year 92 B.C. the orator Crassus adorned his house on the Palatine with columns of Hymettian marble.² In 78 B.C. C. M. Lepidus first used Numidian marble in his house.³ In 74 B.C. L. Lucullus introduced the marble named after him.³ The first use of marble *crustae*, for facing the walls of a house, is accredited by Pliny,⁴ on the authority of Nepos, to Mamurra, a friend of Caesar.

In view of such testimony, and of the fact that only a few years later Rome was a city of marble, it is by no means improbable that the marble in question was put in place as early as 44 B.C. The thickness of the slabs points to an early period in the use of colored marbles. They are 0.08 m. or 0.09 m. thick. The metal pins, still visible in the marble facing, may have served to support documents which had to do with business transacted in the tribunal.⁵

During the month of December, 1899, the dirt and loose stones were cleared away from the inner part of the terrace, and there is now visible a short flight of travertine steps extending from the Umbilicus Romae to the centre, and following the

¹ N.H. XXXVI, 4-6.

³ N.H. XXXVI, 49.

² *Ibid.* XXXVI, 7.

⁴ *Ibid.* XXXVI, 48.

⁵ Cf. Suet. *Gram.* 17, "Statuam habet Praeneste, in superiore fori parte circa hemicyclium, in quo fastos a se ordinatos et marmoreo parieti incisos publicarat."

curve of the wall. They look very much like those of a theatre. Four are still in position, and one or two more are necessary to reach the top of the wall. The inner part is now an irregular floor of concrete from 1.5 m. to 2 m. below the top of the wall. Although the existing form of the steps may not be their original form, they could hardly have been much different. Their thickness is 0.28 m. Perhaps the original steps were thicker.

A satisfactory hypothesis must account for the curved form of this structure, and if we assume that these are the *Gradus Aurelii*, we have such an explanation. The wall and steps were given this curvature because it was a convenient form and one often used in enclosing the tribunals of basilicas and in theatres. The steps may have served as seats for the witnesses and privileged spectators. Cicero¹ says that the partisans of the accuser filled the steps and crowded about the defendant. In the trial of Milo, perhaps, they were occupied by the judges, who were fifty-one in number. At a later time they may have served as steps to the Rostra. The curved wall would have afforded a firm support for the honorary statues which were erected behind the Rostra.

It is strange that Caesar should have thought well to hide so finely constructed a monument, but he could hardly have found a better site for the Rostra, and the concealment of the exterior of a tribunal may well have seemed a trivial matter to him. Yet it is not out of place to note that in 77 B.C. Gaius Cotta successfully defended Cn. Dolabella against Caesar.² So that Caesar may have built it over with the Rostra in vindictive spirit.

It is possible that the Rostra, in its first form, did not conceal the tribunal so completely as it did later, and also, that the latter continued to be used for some time after the building of the Rostra.

Perhaps Cicero makes still another reference to the *Gradus Aurelii* when, in the year 57 B.C., he describes a meeting of the

¹ *Pro Cluen.* 34, 93.

² *Cic. Brut.* 92, 317, and *Val. Max.* 8, 9, 3.

senate held a short time before :¹ "Tum Clodius rogatus diem dicendo eximere coepit ; furebat a Racilio se contumaciter inurbaneque vexatum. Deinde eius operae repente a Graecostasi et gradibus clamorem satis magnum sustulerunt, opinor, in Q. Sextilium et amicos Milonis incitatae. Eo metu iniecto repente magna querimonia omnium discessimus." The passages quoted above show that the Tribunal Aurelium was a meeting-place of the Clodian faction.

In conclusion, the so-called Graecostasis is a structure well adapted, by its theatre-like form, to the use of a tribunal ; it is in a part of the Forum where we might reasonably expect to find an important one ; it stands where such a tribunal existed, according to Asconius ; it resembles a theatre as did the Tribunal Aurelium, according to Cicero ; and its construction shows it to have been in use at about the same time as the Tribunal Aurelium. The fact that no mention is made of the tribunal after 52 B.C. is accounted for by its having become a part of the Rostra.

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¹ *Ep. ad Qu. fr.* 2, 1, 3.

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THE CODEX DUNELMENSIS OF TERENCE

IN the Cambridge edition of Terence, 1701, Leng employed a manuscript called by him the Codex Dunelmensis, which he considered of great value for the establishment of the text. His description is as follows (p. 475): "Tertium atque illum longe pulcherrimum ex agro *Dunelmensi*¹ ad me benigne transulit vir antiqua stirpe oriundus *Frevile Lambton* armig. qui paternam a *Lambtoniis* in eodem comitatu originem ducit, maternam vero a *Rogero de Frevile de Shelford* parva prope *Cantabrigiam* milite; cuius a posteris ad hunc nostrum *Frevile Lambton* hic liber tandem devenit: qui quadratus quidem est, et versuum distinctionem fideliter servat; cuilibet etiam Scenae Personas non tantum Loquentes, sed et Mutas praefixas habet antiquo more delineatas, et tabulam etiam in initio, Personarum capita larvata exhibentem, isti per omnia respondentem, quam Cl. *Daceria* editioni suae ex Codice manuscripto Regis Christianissimi desumtam apposuit: quocum codice hic noster pleraque communia habere videtur."

That this Codex Dunelmensis was to be identified with the Codex Vetrinus (Vetustissimus) of Bentley (1726) was first conjectured by Krauss, *De libris manu scriptis quos perpoliando Terentio R. Bentleius adhibuit commentatio*, 1840, p. 9 seq.² His

¹ Umpfenbach, *Phil.* XXXII, p. 468, suggests that possibly the manuscript came from Dunholme in Lincoln. That the *Ager Dunelmensis* is Durham was pointed out by Ellis, *Academy*, 1872, p. 459. Umpfenbach was also in the dark as to the meaning of *Armiger*, the common designation of one entitled to bear heraldic arms.

² The Dunelmensis is mentioned by Cardinal Mai, *M. Acci Plauti fragmenta inedita item ad P. Terentium commentationes et picturae ineditae*, Milan, 1815, p. 46.



AN IDOL FROM SYRIA: FEMALE



AN IDOL FROM SYRIA: MALE

conclusions, drawn from a comparison of parallel readings cited by Leng and Bentley, were accepted by Brix, *De Terentii libris manuscriptis a Richardo Bentleio adhibitis*, 1852, and Umpfenbach, *Philologus*, XXXII (1872), pp. 468-470, though with some reservation by the latter.

In a review of Umpfenbach's article, *Academy*, 1872, p. 459, Mr. Robinson Ellis expressed the hope that some day the lost treasure might be brought to light. Shortly afterward, certainly before 1881,¹ the manuscript (now Auct. F. 2, 13) was found in the Bodleian library by Mr. T. W. Jackson, fellow of Worcester College, Oxford, but, so far as I am aware, he has never publicly announced the discovery.

The next scholar to discuss the question was Professor Minton Warren, and to him is due the credit of establishing beyond all doubt the identity of Leng's Codex Dunelmensis, and Bentley's Codex Vetustissimus. Cf. *Am. Jour. Philol.* III, pp. 67-68.² In the library of Trinity College, Cambridge, he found Bentley's copy (now B 17, 13) of the Faber Terence, 1686, in which that remarkable man had made collations for his own edition, and on two separate pages had written out lists of the codices employed. These two lists differ in details unnecessary to mention here, but at the head of the first stands "D³ Codex Dunelmensis vetustissimus 4^o"; and of the second "D Codex Dunelmensis nunc in Bibl. Bodleiana Oxonii 900 ann."

The results contained in the remainder of this paper are based on my own collation of the Dunelmensis and Professor Warren's careful collation of the *Andria* and his thorough examination of the division of verses throughout not only this manuscript, but also the Parisinus. To Professor W. M. Lindsay, now of Aberdeen, and Mr. W. H. Stevenson, of Oxford,

¹ The date of Professor Warren's visit to the Bodleian.

² Curiously enough, Dziatzko cites Warren's article in the preface to his edition, 1884, X, note 3, but in the *Commentationes Woelfflinianae*, 1891, p. 221, he speaks of the Dunelmensis as "vielleicht der 'codex 900 annorum' bei Bentley," giving Umpfenbach as his authority.

³ As the Dunelmensis may not be called D, for fear of confusion with the Victorianus, I have ventured to designate it by the letter O (Oxonienis).

I wish to express my gratitude for many helpful suggestions, and to Miss Annie F. Parker, of Oxford, for her painstaking revision of doubtful points in my collation of the Dunelmensis. Mr. Warren has also kindly allowed me to use his collation of the Parisinus, and whenever the reading reported by him differs materially from that of Umpfenbach's apparatus, I have adopted the former, affixing an obelisk to the letter of the manuscript (thus P⁺).

DESCRIPTION AND HISTORY OF THE CODEX

The Codex Dunelmensis is a beautifully written parchment manuscript of quarto size and consists at present of 174 leaves of text with 3 fly-leaves in front and 8 blank leaves at the end. The leaves are 28 cm. long by 21 cm. wide, and are ruled with twenty-five lines to the page. The numbering is continuous and, therefore, comparatively recent, as many leaves are missing.¹ The missing parts are as follows (according to the present method of numbering) :

<i>And.</i> 459-480,	between	17 <i>v</i> and	18 <i>r</i>
" 716-742,	"	25 <i>v</i> "	26 <i>r</i>
<i>Eun.</i> 495-526,	"	47 <i>v</i> "	48 <i>r</i>
<i>Ph.</i> 437-464,	"	163 <i>v</i> "	164 <i>r</i> ,

and *Ph.* 854-1055, following 174 *r*, with the exception of 894-943, which is contained in fol. 118. This leaf comes immediately after *Ad.* 762 and is followed by another leaf containing Priscian, *De Metris Terentii*, III. 420, 17-426, 6 (K.).

The quaternions are in every instance marked by the proper numerals, and often by catchwords.

Quaternion I	ends with	<i>And.</i> 198 (8 <i>v</i>)
" II	" "	" 422 (16 <i>v</i>)
" III	" "	" 663 (23 <i>v</i> , according to the present numbering)
" IV	" "	<i>And.</i> 906 (30 <i>v</i>)
" V	" "	<i>Eun.</i> 137 (38 <i>v</i>)
" VI	" "	" 451 (46 <i>v</i>)

¹ This accounts for the fact that certain quaternions apparently consist of only seven leaves.

Quaternion VII	ends with	<i>Eun.</i> 721 (53 v)
.. VIII	" "	" 975 (61 v)
.. IX	" "	<i>Heaut.</i> 113 (69 v)
.. X	" "	" 422 (77 v, <i>Nam in</i> catchwords)
.. XI	" "	" 727 (85 v)
.. XII	" "	" 1025 (93 v, <i>Eius ut</i> catchwords)
.. XIII	" "	<i>Ad.</i> 200 (101 v, <i>Uerum</i> catchword)
.. XIV	" "	" 471 (109 v)
.. XV	" "	the scene heading of <i>Ad.</i> V, 1 (117 v)
.. XVI	" "	a blank page after the <i>Ad.</i> (127 v)
.. XVII	" "	<i>Hec.</i> 280 (135 v)
.. XVIII	" "	" 588 (143 v, <i>Illius stulticia</i> catchwords)
.. XIX	" "	" 880 (151 v)
.. XX	" "	<i>Ph.</i> 261 (159 v)
.. XXI	" "	" 574 (166 v, <i>Senectus ipsa</i> catchwords)
.. XXII	" "	" 853 (174 v, <i>Nam sine</i> catchwords)

Without doubt the remaining 202 verses of the *Phormio* were contained in Quat. XXIII, all of which is now lost except fol. 118 mentioned above. The other missing leaves were lost before the numbering of the pages, but after the binding of the codex into its present form. Leng mentions the omission of the two leaves lacking in the *Andria*, but neither he nor Bentley has anything to say of others, though it is probable that the manuscript has suffered no alteration since their time.¹

The manuscript when written consisted of 23 quaternions, or 184 leaves. As in the other codices of the class, each scene is preceded by an illustration of the characters therein appearing, and the action of these pictures agrees closely with the general type; but the figures are larger and coarser, displaying inferior artistic ability, and the costumes show greater mediaeval influence. The illustrations extend across the page and take up from ten to fifteen lines.

On *ii r* of the three leaves immediately preceding the manuscript proper, there is the interesting dedication:

Hunc egregium librum
Bibliothecae Bodleianae donavit
Vir spectabilis

Nic. Frevile Lambton de Hardwick in agro Dunelmensi Armiger.
A.D. 1704.

¹ Neither Leng nor Bentley quote from the missing parts of the Dunelmensis.

On iii v:

Passus est Beatus Albanus die decimo Kalend. Iulii iuxta civitatem Uerulanū A° Domenicæ Incarnā Ducentesimo octogessimo sexto sub Dioletiano et Maximiniano;

and on I r in a thirteenth century hand:

hic est liber S̃ti Albani qm̃ q^e ei abstulerit
aut titulum deleuit anathema sit.

Am.

The latter evidently refers to the celebrated Abbey of St. Albans, where the manuscript must have rested in the thirteenth century, and where it probably was written.

In his second list Bentley gives the age of the Dunelmensis as "900 ann.," and often he speaks of another manuscript as "900 annorum"; yet the Dunelmensis is always the "vetustissimus." This would throw the Dunelmensis back to at least the beginning of the ninth century, a very respectable age, even for a manuscript of Terence; but the character of the script is such as to assign it to the twelfth century, and so the Bodleian catalogue has it.¹

It seems highly probable, nay, almost certain, that the Dunelmensis was written at St. Albans during the period of great literary activity which took its start under the Norman Paul, kinsman of Lanfranc, who was abbot from 1077 to 1093.

Of interest are the words of Newcome, *History of the Abbey of St. Alban*, 1795, p. 48: "But among other things, one Robert, a very stout soldier, who lived at Hatfield, and being one of the Norman leaders had received that vill and manor in the distribution, gave two-tenths of the tithes of his demesne; assigning it for the purchase of books for the monks: for this Robert was a man of letters and a diligent hearer and lover of the scriptures. The tithes of Redfern were assigned to the same purpose.

¹ The catchwords at the end of quaternions show that the manuscript could not have been written before the eleventh century. Cf. Thompson, *Handbook of Greek and Latin Palaeography*, p. 62.

“And the best writers and copyists were sought for far and near for transcribing books; and their diet so provided for them, that they might not be taken off or hindered in this employment. . . . A particular room in the Abbey was set apart for these copyists, called the *Scriptorium*: and by their means twenty-eight volumes of the choicest books were procured, Lanfranc furnishing the originals.”

The next step in the investigation is to determine as closely as possible when the manuscript was written. The character of the script points to the twelfth century, but the date may be far more accurately decided by means of certain notices in the *Gesta Abbatum Monasterii S. Albani* (Riley, 1867).

The first of these (Vol. I, p. 184) states that Simon, nineteenth abbot, 1167–83, “Non desiit libros optimos et volumina authentica . . . quibus non vidimus nobiliora scribere.” Of the same abbot the following statements are made on p. 192: “Notandum quoque quod iste immortalis memoriae Abbas Simon duo vel tres electissimos scriptores continue in camera sua honorifice sustinuit, unde librorum optimorum copiam impretiabilem ad unguem praeparavit et in speciali almario reposuit.” What is more likely than that the Dunelmensis was one of those “libri optimi”?

Of greater interest is the notice in Vol. II, p. 200, under Richard II, twenty-eighth abbot, 1326–35: “Iste abbas . . . contulit . . . Domino Ricardo de Byri (Richard de Bury) clerico portanti sigillum privatum regis quattuor istos libros videlicet, Terentium, Virgilium, Quintilianum, et Ieronymum contra Rufinum . . . Venditi sunt praeterea . . . triginta duo libri eidem Domino Ricardo de Byri pro L libris argenti.”

The account further states that many of the monks were highly displeased with their abbot's action, and that Richard de Bury, “ductus conscientia,” restored certain of the books after he had been made Bishop of Durham (1333), whilst others were recovered from the bishop's executors on his death in 1345.

Is the Terence, which was acquired by Richard de Bury from St. Albans and taken by him to Durham, to be identified

with the Codex Dunelmensis? If so, it is highly improbable that the manuscript was among those restored to the abbey, and that it again made its way to Durham.

For a long time prior to 1704 we know that the Dunelmensis was in the possession of the Freviles of Durham, but how it devolved to them, or why it was not sent to Durham¹ College, Oxford, along with Richard's other books, I am not prepared to say.

According to Surtees, *History of Durham*, 1823, III, pp. 34-36, Hardwick became the property of George Frevile, a Staffordshire gentleman, in 1570. His nephew and heir, Nicholas Frevile, was the maternal grandfather of Frevile Lambton (ob. 1731, aet. 70). The signature, "Nic: Frevile," in bold characters, is seen at the bottom of II r.

Leng says that the Dunelmensis was inherited by the Durham Freviles from the descendants of Roger de Frevile, of Little Shelford, near Cambridge. If from this statement the inference is necessary² that the Dunelmensis was owned at Little Shelford before it went to Durham, one of two conclusions must be adopted, either that the manuscript obtained by Richard de Bury from St. Albans was not the Dunelmensis, or else that Leng is in error. I incline to the latter alternative for this reason, among others, that the thorough and painstaking Surtees is silent as to any connection between the two branches of the Freviles, and even as to the existence of the Little Shelford family.

To return to the description of the codex, the remainder of I v, and all of II r, are taken up by an amplified form of the Vita Oxoniensis (cf. Dziatzko, *J.J.* 1894, p. 472), which abounds in absurdities, with respect to Terence himself, Calliopius, the metres of the plays, etc.

II v contains a picture of Terence with a masked figure on either side. III r has the aedicula with the thirteen masks, as in CP, but it should be observed that the aediculae and masks are omitted before all the other plays.

¹ Now Trinity.

² To me it seems natural, but not necessary.

On III *v* is the well-known poem in elegiac verse :

“Natus in excelsę tectis Karthaginiis altis
 Romanis ducib; bellica preda fui
 Descripsi mores hominũ iuuenumq; senumq;
 Qualiter & serui decipiant dominos
 Quid meretrix qđ leno dolis constringat auarus
 Hęc quicumque legit sic puto cautus erit.”

At the bottom of LII *r*, in a seventeenth-century hand, is the self-explanatory distich,

Henry Allen wrote the same & would for this he had no blame,
 & Thomas

which may give us a clew to the disappearance of certain leaves, *e.g.* *Eun.* 495–526. and *Ph.* 437–464, which have unmistakably been cut out.

The order of the plays is the same in O as in the other illustrated manuscripts: *And.*, *Eun.*, *Heaut.*, *Ad.*, *Hec.*, *Ph.*

Below the illustrations there is usually a commentary bearing on the scene. So at the beginning of the *Andria*: “Vos istec et cetera. Quia Simo nuptias se velle celebrare serui illius eulogias detulerunt et ministri qđ unusquisque poterat quidam lac et cetera talia quę omnia p̄cepit intro in aliam domum deferri. Istec autem in omni Terentio disyllabe pronuntiandum est cū diptongo et resoluitur hęc ista. Et istuc p̄c.p istud et istoc p hoc istud. Sosia adesdum. Id est dum ades prope anteqm longius recedas. Paucis te volo. Sosias iste seruus eius fuerat, fecerat eum libertum commendans ei que in domo erant et ad coquinam ptinebant,” etc., etc.

More interesting is the commentary inserted in place of the didascalia of the *Adelphoe*: “Acta est ista fabula quā Terentius Latine composuit post Menandrum ludis funebribus quos exercebant in anniuersariis principum aut eroum quos inter eroas computabant Quinto Fabio Maximo Bullio Cornilio Africano Emili Pauli filio edilibus, fecerunt Lucius Attilius Praenestinus Minutius Prothimus, modos fecet Flaccus Claudii tibiis Sarranis. Claudium sicut iam diximus genus est tibiis inaequalibus tibiis compositum. Sarranę autē dicuntur tibię a Sarrano auctore qui

illud genus tibi arum adinuenit. Fabula autem Adelphoe, quam Ter. composuit post Menandrum recitata est Romae dum isti supradicti ediles curules essent et dum ludi funebres agerentur. Graeca uero Menandri facta est Annicio Marco Cornilio consulibus."

LENG AND BENTLEY

Little need be said of Leng's use of O, and I shall simply call attention to two passages, where he misquotes the readings of the manuscript :

Heaut. 852, "Sed nostri manuscripti omnes *apud me* legunt." Here the reading of O is *apud te*.

Hec. 552, Leng gives the reading of O as *haec fecit*, but the manuscript has *hec facit*.

Bentley evidently considered the manuscript of great value. Often he speaks of it as "Codex primariae notae" (*And.* 237; 353, etc.), and sometimes follows its readings when supported by no other manuscript known to him, or at any rate cited by him.

Cf. *And.* 353, "In altero primariae notae codice (O) non comparet illud *Sese*."

Hec. 581, "Rem conficit noster veterrimus. *Teque ante quod me amare rebar ei rei firmasti fidem*."

Ph. 26, "*Graeci Latini Phormionem nominant*. Id vero miraculi instar est, si iam Latini nominant Phormionem, priusquam acta fuerit, priusquam eam cognoverint. Mendum sine dubio hic latet; quod iam eruimus et eluimus. Unus ex Meadianis *Graeci Latine*; at vetustissimus noster *Graece Latine*. Repone,

*Epidicazomenon quam vocant Comoediam
Graece, Latine hic Phormionem nominat.*

Hic est auctor Terentius . . . *Graece* autem et *Latine*, non *Graeci* et *Latini*."

Ph. 526, "*Sterculinium Dorio*. Sic dedit Faernus, versu ipso melius admonente. Noster quoque 900 annorum *Sterculinium*; sed veterrimus *Sterculinum*. Vel hoc retine vel *Stercilinum* (Bentley retains *Sterculinum*)."

Ph. 559, "A veterrimo abest *Hinc*"; and Bentley follows the Dunelmensis, which here stands alone.

Heaut. 811, "*cum istoc*, etc. Sic dedit Faernus; dubito an ex libris: Nostri enim omnes *tuo* addunt, *cum tuo istoc*. Lege ex vetustissimo nostro, *cum tuo isto*, etc."

Heaut. 925, "Praeterea veterrimus noster, *ut sentiat*" (which he adopts).

Heaut. 980, "Pro *Etiam fame* codex noster veterrimus, *Etiam a fame*. Recte."

It would require too much space to give a detailed discussion of all the passages in which Bentley follows the reading of O when supported by other manuscripts, or by the testimonia of ancient authors. Let the following suffice :

And. 395, "*Nam quod tu speras. Liber Vaticanus et Donatus Speres (Faernus). Ita et ex nostris veterrimus.*"

And. 451, "*Duo ex nostris libris primarii Est obsonatum. Recte.*"

Eun. 680, "*Praeter Bembinum, etiam ex nostris veterrimus, Namque.*"

Eun. 837, "*Illo unus veterrimus et Priscianus, p. 1101. Ceteri Illi, nescio an rectius.*"

Cf. also *And.* 712, 864, 941, 971; *Eun.* 28, 553, 861; *Heaut.* 589, 746, 788, 1050; *Ph.* 209, 755; *Hec.* 594, 846; *Ad.* 84, 484, 500, 577, etc.

Few indeed are Bentley's actual errors of collation, but in very many passages the inexact method of reporting readings naturally leads to false inferences. Often, too, he refers to the *Dunelmensis* in a very vague and indefinite way.

And. 238, "*Duo tantum ex nostris Decrevit; alii magno numero Decrerat*" (*Decreuerat O*).

And. 287, "*Nostri omnes, uno excepto, agnoscunt illud Res*" (*Res om. O*).

And. 485, "*Mox ego huc revertar. Aliqui libri et Donatus, Revertor (Faernus). Ita et nostrorum pars maior et melior*" (*Reuortar O*).

And. 627-628, "*Unus tantum e nostris Gaudeant, Comparent*" (*Sic O*).

And. 635-638,

"*Quis tu es? Quis mihi es? Cur meam tibi?*

Heus proximus sum egomet mihi. Attamen ubi fides

Si roges, nil pudet. Hic ubi opus est,

Non verentur: illic ubi nihil opus est, ibi verentur.

Ita Faernus et codices nostri; nisi quod in nostro omnium veterrimo, et manuscripto Regio apud Lindenbrogium deest illud *Non verentur.*"—He might have added that in *O Heus* is at the end of the preceding line, the position adopted in his own text.

And. 754, "*Porro meliores ex nostris Ahahe: non ut in risu solet Ha ha he*" (*Ha ha hae O*).

And. 882, "*O. l. s. quotquot vidi, post ascriptam Simonis personam habent Hem (Faernus). Sic et nostri omnes*" (*Hem om. O*).

Eun. 874, "*Malo ex principio . . . Sex e nostris Ex malo principio*" (*Et malo principio O*).

Eun. 883, "*Tres ex nostris veterrimi . . . Tum pol ab istoc tibi*" (*Tibi ab istoc O*).

Eun. 1069, "*Porro omnes habent Volo, non Velim*" (*Uoluo O*).

Heaut. 503, "Nostri ut editum" (Id est *Ita* ; *Ita*

Heaut. 606, "Nostri omnes, uno excepto, *Daturum*" (*Daturam* O).

Ad. 95, "Vetustiores nostri magno numero *Rei operam dare*" (*Rei dare operam* O).

Ad. 304, "Nostri codices *Saeculum*" (*Seculum* O).

Ad. 518, "Recte *Cum maxime* : Nostri *Eum* vel *Autem*, vel nihil omnino" (*Cum maxime* O).

Ad. 825, "Nostri *Quod, Quod*" (*Quid, Quod* O).

Hec. 846, "*Anulum suum* ceteri codices ; sed veterrimus, cum Petrensi, *Suum anulum*" (*Anulum suum* O).

Hec. 867, "*Par fuerat resciscere*, nostri universi" (Verborum ordo recte datur, sed *Sciscere* habet O).

Ph. 143, "Nostri etiam plerique *Addit*, unus et alter *Addet*, vel *Addat*" (*Addet* O).

Ph. 182-183, "*Quae si non astu providentur, me aut herum pessum dabunt* . . . Abest ab uno veterrimo nostro" (Hunc versum habet O).

Ph. 260, "Nostri *Egone*" (*Egon* O).

Ph. 519, "Ex nostris tres primarii *Es dignus*" (^{a.}Es quod dignus O).

Ph. 619, "Codex noster veterrimus pro *Eius* habet *Prius*" (*Pius* O).

Ph. 826, "Ex melioribus nostris quattuor *Ostenta*" (*Ostentata* O).

Ph. 828, "*Iubeas* nostri fere omnes" (*Iubeat* O).

NICHOLSON'S THEORY

On a fly-leaf of the *Dunelmensis* is the following interesting suggestion:

"From fol. 17 *a* I conjecture that this Ms. is copied from a 9th century Ms. in the Bibliothèque Nationale, 7899. Cf. Quentin Bauchart, *La Bibliothèque de Fontainebleau*, 156-7.

E. W. B. NICHOLSON."¹

This hypothesis, to be sure, seems to have been founded simply on a comparison of the facsimile of a page of P (*And.* 422-434), as given by Bauchart, with the corresponding passage in the *Dunelmensis*; yet the two manuscripts are so closely related, that for some time I sought additional evidence to substantiate Mr. Nicholson's position, only to become finally convinced that it is untenable.

The most striking testimony is that offered by verses 804-853 of the *Andria*. These verses are omitted by C¹P¹, but are

¹ Librarian of the Bodleian.

supplied on new leaves by a different hand. That is to say, in C¹P¹ 854 immediately follows 803 without any break in the text. Now the Dunelmensis not only does not omit these verses, but has the illustrations at the head of V, 1 and V, 2, manifest and conclusive evidence that the Dunelmensis could not have been copied from P, in which the later hand has supplied the text alone, not the illustrations.

In addition, P¹ omits verses 1-30 of the prologue of the *Eun.*, and the missing portion is supplied by the later hand on one of the new leaves. In C¹ the whole of the prologue is lacking and is supplied by the later hand. In the Dunelmensis, on the contrary, there is no trace of any such omission in the original.

To dispose of this theory once and for all, I have collected data along a slightly different line. Variant readings, even though numerous, are not sufficient proof in themselves that the one manuscript is not a copy of the other, for that would be denying the fallibility of scribes; but when the codex agrees in many readings with other members of its family and in the same passages differs from its supposed original, such corroborative testimony should be considered very strong. Some of the many readings that might be cited are given below:

- And.* 353, prehendit C¹O
apprehendit C²P
" 444, cauit ne O *cum rell. praeter* P
caute ne P
" 686, quid est hem CO
quis est hem P
" 703, Scio hic quid P
Scio quid O *cum rell.*
Ph. 57, quod ni metu P
quo in metu O *cum rell.*
" 73, usu FO, usus C, usus P
" 175, Ego infelix incidi in eum locum P
Ego in eum incidi infelix locum O *cum rell.* (±)¹
" 249, esse CFO
est EP

¹ The sign (±) is used to indicate that the manuscripts placed before it have approximately the same reading.

- Ph.* 475, feci FO
fecit *rell.*
Hec. 154, tu O *cum rell. praeter*
tu *om.* P
Ad. 320, imperare P
impertire O *cum rell.*

But enough of these instances have been given, I think, to prove that O is not a copy of P. On the contrary, the Dunelmensis is not the copy of any manuscript now known. The fact still remains, however, that O, though close to F and even closer to C, yet seems in some respects most nearly related to P.

Before taking up this side of the question, it may be just as well to point out the readings of O which do not agree with any of the manuscripts cited by Umpfenbach.

<i>And.</i> 16, decere <i>ex decet</i>	<i>Eun.</i> 546, ipso est <i>om.</i> O.
" 25, relictum O; relicuum <i>rel</i> reliquum <i>rell.</i>	" III, 5, ANTIPHO CHAREA (EA atramento nigro) O
" 59, haec omnia O omnia haec <i>rell.</i>	ANTIPHO ·II·, omisso Chaereae
" 86, phedram O; phedriā (iā in ras.) D; phedrium E; phaedrum <i>rell.</i>	nomine P
" 102, despondit O; despondi <i>rell.</i>	ANTIPHO CHEREAS F (Warren).
" 157, operā do <i>ex</i> operando O operam do <i>rell.</i>	CHAREA ANTIPHO C ¹ , ADVLESCENS
" 441, sinet O; desinet <i>rell.</i> (±)	CHAREA <i>del. et</i> CHAE- REA <i>post</i> ANTIPHO <i>add.</i>
" 611, incolumen O; incolumem <i>rell.</i> (±)	<i>man. rec.</i> (Warren).
" 813, ei O; eius <i>rell.</i> (ei ³ P ¹)	" 552, ultā (sic) O
" 831, atque dolore O atque eius dolore <i>rell.</i>	uita <i>rell.</i>
" 888, ut <i>om.</i> O	" 699, nec quis esse' audiera' di- cier O
<i>Eun.</i> 149, meo beneficio O beneficio meo <i>rell.</i>	nec quis esset umquam audieram dicier DEFG
" 208, sati ^s ne O; satine <i>rell.</i>	ne ^s qs ūq audierā dicier eēt P ²
" 300, ullum O; illum <i>rell.</i>	neq s eēt unquā audierā di- cier <i>int. lin. add. schol.</i> C
" 385, uti O; uta P ¹ ; ut <i>rell.</i>	nec—dicier <i>om.</i> AP ¹ C ¹
" 534, <i>Post hunc versum</i> O <i>habet</i> , ecquis cum ea una quid habuisset cum periit (= 522)	" 705, istic O; isti <i>rell.</i>
	" 728, accumbebam O (accuba bam P ¹ , ba <i>man. rec.</i> , accumbebam <i>fortasse</i> P ¹)

<i>Eun.</i>	734, sunt <i>om.</i> EO)	<i>Hec.</i>	372, uidende O; uidendi <i>rell.</i>
"	777, hunc O; huc <i>rell.</i>	"	550-551, PH1 <i>om.</i> O ante <i>vs.</i> 550 et add. ante quid tum
"	851, factum ē O; factum <i>rell.</i>	"	737, ignoscique O; ignosci <i>rell.</i>
"	940, est salus O; salus est <i>rell.</i>	"	796, hecūmū O; haec nunc <i>rell.</i>
"	1020, Hunc <i>versum om.</i> O	<i>Ad.</i>	25, ascribendum O; ad scri- bendum <i>rell.</i>
"	1052, est <i>om.</i> O	"	93, omni <i>om.</i> O
"	1061, hinc O; hic <i>rell.</i>	"	99, quid nisi O; qui nisi <i>rell.</i>
"	1069, uoluo O; uolim D; uolo CEFGP	"	123, quemuis cedo O; cedo quemuis <i>rell.</i>
<i>Heaut. Per.</i>	9, tectinis O; technis <i>rell.</i>	"	149, hic amauit O; hic non amauit <i>rell.</i>
"	52, michi O; sibi <i>rell.</i>	"	171, nec O; ne <i>rell.</i>
"	273, hoc <i>om.</i> O	"	189, est iniuria orta O est orta iniuria CEFPP orta est iniuria <i>rell.</i>
"	449, habere O; haberi <i>rell.</i>	"	260, exspectat Tesipho domi / hem (/ Th'e in marg.) O exspectat domi, hem <i>rell.</i>
"	667, olim <i>om.</i> O	"	271, O Tesipho O; Ctesipho <i>rell.</i>
"	914, quod O; quo <i>rell.</i>	"	274, ahahah O; aha <i>vel</i> ah <i>rell.</i>
"	946, recondam O; retundam <i>rell.</i>	"	440, a <i>om.</i> O ¹
"	981, quid O; quae <i>rell.</i>	"	482, nunc O hunc, h in ras. P ⁺ (n P ¹) hunc <i>rell.</i>
<i>Ph.</i>	10 et 33, auctoris O; actoris <i>rell.</i> (auctoris F in 33)	"	562, homonem O; hominem <i>rell.</i>
"	26, Cf. <i>supra</i> , p. 318	"	640, ipse michi O; mihi ipse <i>rell.</i>
"	148, certum satis scio O certum scio <i>rell.</i>	"	706, tu <i>om.</i> O
"	184, tum <i>ex</i> tunc O tum <i>rell.</i>	"	764, administratium O administrasti tuum <i>rell.</i>
"	287, familia est O; familiae <i>rell.</i>	"	825, non quid O; non qd̄ <i>rell.</i>
"	360, O audatia O; O auda- ciam <i>rell.</i> (±)	"	961, quid O; quod <i>rell.</i>
"	480, aiebant O; aiebat <i>rell.</i>		
"	484, a O; ab <i>rell.</i>		
"	559, Cf. <i>supra</i> , p. 318		
"	690, ulcus hoc O; hoc ulcus <i>rell.</i>		
"	804, emisti O; errasti <i>rell.</i>		
"	809, ipsum O; ipsam <i>rell.</i>		
"	822, qua O; quam P ² ; <i>ex</i> quas P ¹ ; quas <i>rell.</i>		
"	846, Non tu intelligis O Num " " <i>rell.</i>		
<i>Hec.</i>	336, nescio O; misera <i>rell.</i>		

From this list one may readily see that Bentley seized upon the two most interesting readings (*Ph.* 26 and 559), and there

are but four others which have, or seem to have, any value, viz., *And.* 813; *Eun.* 851; *Heaut.* Per., 9; *Hec.* 372.¹

RELATION TO P

As we have just seen what slight influence the unique readings of O can possibly have on the text of Terence, it may be well now to discuss the relation of the codex to the others of the illustrated type, for it is in the corroboration of the readings of other manuscripts that O's chief value lies.

Let us begin with P, to which O is undoubtedly most closely akin. The relationship may best be shown by the correspondence of verse division in the two codices; but before proceeding to that more important point, some of the passages will be noted, in which O and P agree in opposition to all the other manuscripts.

- And.* 204, sed hoc dico O
sed hōc dico P
sed dico *rell.*
- " 495, certi OP; certe *rell.*
- " 864, ego *om.* OP
- Ph.* 490, afferes O
adferes P
adferres *rell.*
- " 619, pius O
 ^r ei' P
pius P
eius *rell.*
- Hec.* 296, scitum est OP
est scitu *vel* scitu est *rell.*
- 325, te nunc OP; nunc te *rell.*
- 532, adeo OP; adeon *rell.*
- " 581, ante quod O; ante qđ P; ante quam *rell.*,
etc., etc.

In a discussion of verse division, C must, of course, be disregarded, and FOP be taken up. Close affinity is displayed by these three manuscripts, in the division of verses, with respect not only to whole, but also to broken lines. In this regard O

¹ In *Hec.* 372 Fleckeisen² reads uidendae.

and P are much closer to each other than either is to F, for in the latter manuscript there are many vagaries peculiar to itself alone. In consequence of this fact, and of the fragmentary nature of F, it seems best to confine the discussion to O and P.

The most striking instance of the loss of verse division in P is in the *Eun.* 275-515. This whole passage is written as prose, with only an occasional verse preserved. In O the same is true, and the division of lines corresponds almost exactly with that of P, word for word and syllable for syllable, the only exceptions being 291, where in P the line closes with *properans*, in O with the following word, *uenit*, and 311, where P closes with *nunc*, O with the following *promissa*.

As a concrete example of the utter loss of verse division, and of the exact correspondence of the two manuscripts, I give below the opening and closing words of each line from 292 to 310 in both O and P (exclusive of the notae):

Occidi . . . conspectu	-moratus . . . non (<i>post illum P,</i>
Amisi . . . perconter	<i>n̄ int. lin.</i>)
Quam . . . diu	Flocci . . . es
Celari . . . ani	Tristis . . . is
-mo . . . formarum	Ego . . . ita
Ecce . . . infor-	Prorsus . . . mei
-tunatum . . . amare	Qui . . . ostendes
Ludum . . . huius	Qui . . . aliquid
Rabies . . . dabit	Inueni . . . cog-
Ut . . . re-	-noseas . . . congerebam

The correspondence of O and P may be noted, not only where there is a false division of verses, but also where the lines are broken. In the archetype many verses which were too long to be written on one line were continued to the next, and the part of the verse which fell on this second line was set in from the left margin, so that it should not be mistaken for a complete verse. With singular fidelity O and P (and often F) have copied these lines just as they stood in the original, even when there was an abundance of space for the completion of the verse. *E.g.*, *And.* 272, Quae . . . cre- takes only 9 cm.

of space,¹ leaving 5 cm. on the line, yet -didit is written below in both O and P.

There are scores of instances similar to this, but the agreement is much more striking, when in one of the manuscripts the first line is at the bottom of a page, and the continuation is at the top of the next page, set in from the margin. In every example cited below there was enough room to finish the verse on the last line of the page without continuing at the top of the next.

FROM THE DUNELMENSIS²

<i>And.</i> 599,	21 <i>v</i>	<i>begins with illi.</i>	DAV.	Nullus sum
"	621, 22 <i>v</i>	"	"	meritus? DAV. Crucem
"	645, 23 <i>v</i>	"	"	-placita est tibi
"	707, 25 <i>r</i>	"	"	-mento estis
<i>Eun.</i> 217,	41 <i>r</i>	"	"	me affirmare et
"	234, 42 <i>r</i>	"	"	hinc atque ordinis
"	272, 43 <i>r</i>	"	"	-do: at numquid aliud
"	652, 52 <i>r</i>	"	"	PHA. Quid istuc est rei?
				etc.

FROM THE PARISINUS

In P this is not so common, yet instances may be noted:³

<i>And.</i> 307,	11 <i>v</i>	<i>ends with amo- and 12 r begins with -rem</i>
"	702,	25 <i>r</i> <i>begins with quaero</i>

The extreme care which the scribe of O exercised in copying may be illustrated by other interesting phenomena in the division of verses. *E.g.*, in *Eun.* 440, the line in the manuscript from which he was copying ended in *pamphilam*; and not having quite enough room in his own manuscript, he finished the line thus, *pamphi^{lam}*, though there was no reason why he should not break the verse and continue it on the next line, as had so often been done in the archetype of O and P.

¹ These measurements are from P.

² It should be borne in mind that the verse division in P agrees *exactly* with that of O, though in these instances the broken line in P does not happen to come at the bottom of the page.

³ Here again the broken lines coincide in the two manuscripts, but in O they do not fall at the bottom of the page.

So in *Ph.* 715, *opus* is placed above for lack of room, and in *Ad.* 524, the same is true of *longius*.

To conclude, let us take up briefly those lines in which the verse division of O does not agree with that of P. The number of such lines is in the neighborhood of forty. Many may be accounted for by the fact that the line was simply too short to contain the whole verse, which was of necessity continued below, if the surplus word or words could not be placed above (cf. *supra*, p. 326).

So in Heaut. 732, *the verse is broken in O after fundo*
 " " 743, " " " " uult

Similar are *Ad.* 264, 517, 538, 542, 696.

In many other passages the verse division differs by only a word or a syllable.

So And. 178 *is broken in P after fecit, in O after neque*
 " 227 " " " impru- in O after impruden-

Similar are *And.* 236, 249, 264, 301, 350, 397, 409, 533, 614, 926, 943, 960, 979; *Eun.* 291, 311.

Lines which are broken in O and not in P are as follows: *And.* 928, 929, 936, 937, 943, 956, 963, 975, 977.

An interesting example of verse division is *Eun.* 698-699. P¹ has *PH. Quicum . . . non* on one line, to which P² has added, *Ne q̄s ūq̄ audierā dicier ēēt*. In O, *PH. Quicum . . . dicier* is intended as one verse, and the line is broken after *eum*. As this is the last line on the page, *prius* is at the top of 53 v.

Of course, whenever a later hand has supplied parts of P, no conclusions must be drawn from differences in verse division. *E.g.*, in the *And.* 804-853, there are six broken lines in O, and none in P. Again, in *Eun.* 643-651, the verse division differs widely in the two manuscripts, but here too a later hand is responsible for the text of P.

To what conclusion are we drawn by the remarkable similarity that has been pointed out as existing between O and P?

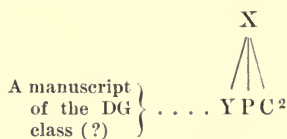
We have already seen that O cannot possibly be a copy of P. The most natural hypothesis, then, would be that O and P

(with C) are copies of the same manuscript; but this also is impossible, for the original of CP did not contain *And.* 804-853, or at least had lost it when these copies were made, and O, which was written two or three centuries later, could not have been immediately derived from the same manuscript.

After a careful consideration of the data available, I offer the following theory as best adapted to explain the manifestly close kinship of O and P: *O was copied from a sister manuscript of CP, one that was itself copied before CP, and before the original had lost And. 804-853.*¹

The mere fact that O has the text of *And.* 804-853, and in its proper place, would not force the conviction that Y was copied before CP, for the missing passage might have been supplied later in it as in CP; but the illustrations given by O (and omitted by CP) at the head of *And.* V, 1, and V, 2, are so similar in type to all the others as to lead irresistibly to the conclusion that O drew them from Y, and Y from X.

The following diagram will serve to illustrate the genealogy of the manuscripts:



The occasional agreement of O with one or more of the manuscripts of the DG class may best be accounted for by supposing that Y was corrected from a manuscript of that family, as is indicated in the diagram. The influence of the DG class may be seen from the following examples:

And. 709, mihi incipit DEGO
incipit mihi *rell.*

Eun. 44, animaduertite DEGO (±)

animad^{ad}titite
animumadtendite P
animum attendite C († ad^{ad}titite in marg.)

¹ For convenience this lost original of O will be designated Y, and the manuscript from which CPY were copied, X.

² If C and P are not copied from the same original, but are several generations later than X, the tree need not be changed materially.

- Eun.* 337, heus tibi D¹O
 heus heus tibi *rell.*
Ph. 262, me *om.* DEFGO
Hec. 64, te misereat DEFO
 misereat te (te *add* P²) P
 misereat C
 “ 134, istoc DO; isto *rell.*
Ad. 395, ille futilis somnium DEGO (±)
 ille somnium (futilis *in marg.*) CFP
 “ 854, cui rei opus est ei rei hilarem hunc DEGO
 cui rei est ei rei hunc CFP¹

The foregoing list contains what seems to me the most certain instances of the correction of Y by a manuscript of the DG class, omitting, to be sure, all the passages in which CP are by a later hand, for in such cases it is very difficult to decide which truly represents the original X. Of course there are many other passages where it would seem that Y might have been copied from a DG manuscript, but the probability of double reading in X, together with the idiosyncrasies of the scribes of Y and O, renders any absolute decision impossible.¹

So it seems that O is corrupted only to a slight extent by the influence of the DG family, and that it is a comparatively pure and unadulterated representative of the illustrated type. Hence it follows that O should be of considerable importance whenever we do not have the testimony of C¹P¹.

In the *And.* 804–853, O is probably the best representative of its family. From what source this missing part of CP was afterwards supplied cannot be determined, but certainly it was not from X.

Below will be found a collation of O, *And.* 804–853, compared with the text of Umpfenbach (omitting some minor details of orthography) :

- 804, satin nos ne
 807, nondum
 809, Semper eius dicta est hec
 810, fuere

¹ Dr. Warren is of the opinion that interlinear glosses in X, some of which may have been preferred by the scribe of Y, may account for all cases of agreement between O and the DG class. Probably he is right.

- 811, Litis sequi quam id michi
 813, ei
 814, grandiuscula
 815, sicofantam
 817, O optime antiquum
 818, maxime
 V₁ 1, Cremes Senex Simo
 821, inepi
 822, pene
 823, quam maxime abste oro atque postulo
 824, beneficiū (sic) reⁱcomprobes (sic).
 825, iniquus
 830, atque incertas
 831, atque dolore
 832, inepi te tulit
 835, maxime deterrimum
 836, ficta incepta
 837, iis
 838, *Versus exit in CHR. At. (ita P⁺)*
 839, Uero presens erat
 840, SI om. O
 841, quid tibi
 V, 2, Dauus Seruus Cremes Simo Dromo Lorari
 842, nunc iam hem dauum
 845, Quemnam
 848, arcesse ex accerse
 849, responde negotii est
 850, Michine ego om. O introii
 852, dixtin carnifex

The whole of the prologue to the *Eun.* is omitted by C¹, and verses 1–30 by P¹, whereas O is complete here as it is in *And.* 804–853. The collation of O, *Eun.* Prol., with the text of Umpfenbach, follows :

- 5, sic existumet sciat presumet
 6, quale sit prius
 9, fasma
 10, in^a thesaurō^{is} corr. O¹ (?)
 11, suum
 12, thesaurus
 13, mon^uimentum
 16, desint
 17, condonabuntur
 22, adessent

- 25, neuu
 27, imprudenti^q est
 35, isdem uti aliis non licet^t
 36, currentis seruos
 39, seruum
 41, sit dictum
 42, quare equum est
 44, et cum silentio animadvertite

A detailed comparison shows that in the preceding passages O has the better reading fully four times as often as the later hands of CP, and that, therefore, it more truly represents the archetype of the illustrated family than does either of the others.

Again, *Eun.* 643-651 is by a later hand in P, and for the sake of completeness O's readings for these verses are given here :

- 643, impium queram
 644, Hocceine perii P^{NA}.
 646, misere
 648, inuoluem
 650, queris
 651, egon queram ii hinc quo dignus es

RESTORATION OF X

We have come now to the consideration of O as an aid to the restoration of X ; and from this point of view it is that the manuscript deserves a place in the critical apparatus of any edition of Terence aiming at completeness.

In numerous instances C and P differ in their readings, and the testimony of O often decides between the two. In the following list there are some passages selected from the *And.* and *Eun.* for the purpose of illustration.

And. 204, sed dico C
 sed hoc dico O
 sed h^oc dico P
 hoc
 sed dico *fortasse* X
 " 267, quid agit OPX
 quid agat C *corr.* C²

And. 276, uerear O
 uereor P, or *in ras.*
 uereor C (*Warren*)
 uerear X?
 " 301, pamphilo hodie nuptum
 COX
 pamphilo nuptum P[†]

<i>And.</i> 313, prodat COX ptraat (ptra <i>in ras.</i>) P	<i>And.</i> 854, ex me audias OPX ex mem dīces C, audias <i>in.</i> <i>marg. add.</i> C ²
“ 353,prehendit ait OX (?) ^{ap} prehendit ^{ait} C <i>corr.</i> C ² apprehendit ait P	“ 864, Iam te OPX SYM. Ego iā te <i>in ras.</i> C
“ 504, dari OPX dare C	“ 873, ac mitte COX et mitte P ^t , et <i>in ras.</i>
“ 531, nollit O nollit P <i>corr.</i> P ¹ nollit C <i>corr.</i> C ² nollit X	“ 881, hanc COX; hanc <i>om.</i> P
“ 569, quot PX ^t quod C <i>corr.</i> C ² quod <i>in ras.</i> O (quot O ¹)	“ 980, ex(s)pectetis OPX exspectatis C
“ 575, ais OPX agis C	<i>Eun.</i> 86, tun OX ^{tune} tu C <i>corr.</i> C ²
“ 684, erit O ⁱ erit C erit <i>int. lin.</i> P ² ? X	“ 197, paruam OPX parum C
“ 686, quid est COX quis est P	“ 401, ⁱ quod O ⁱ quod C qui P, i <i>in ras.</i> quod X
“ 699, poterit OPX potuerit C	“ 402, gestare C ¹ OX gestire C ² gestire <i>ex</i> gestare P ^t
“ 703, Scio quid COX Scio hic quid P	“ 776, GNA. eccum adest OX SAN. “ “ P, SAN. <i>in ras.</i> SAN. GNA. eccum adest C, <i>corr.</i> C ² SA eccum adest F, SA <i>add.</i> F ²
“ 751, dicturan es COX dicturaneles P, es <i>in ras.</i> <i>a man. rec.</i> (dicturanes P ¹ ?)	

ON THE AGE OF X

Very little evidence can be brought to bear, which will help us in determining the age of X. In COP there are many wrong word divisions, but these merely seem to show that the originals were written continuously.

Of interest is *Heaut.* 746,

harunt^c C
harunc F¹.
harun^m P
harunc O,

which proves that the original of C, whether X or a descendant of X, was written in minuscules¹ (*c* and *t* confused).

In O there are three similar cases of confusion, two of *u* and open *a*,

And. 86, phedram O
 phaedrum *rell.* (±)
Ph. 809, ipsum O
 ipsam *rell.* ±,

the third of *c* and *t*,

Heaut. 946, recondam O
 retundam *rell.*

These errors may not with certainty be traced back beyond Y, for which they indicate a minuscule script.

On p. 328 I have intimated that possibly X was not the immediate original of CP, but the facts in the case are not sufficient to warrant more than a suspicion.

ON THE PAGING OF X

A puzzling question is this. X must have contained *And.* 804–853, when Y was copied from it, and afterward have lost the leaf or leaves which held the passage. Now O has 6 broken lines in *And.* 804–853 (837, 838, 843, 844, 845, 850), making 56 lines to be accounted for, in addition to 2 illustrations.

If we suppose a single leaf to have been lost, X must have had 36 lines to the page, allowing 8 lines for each illustration.

Scheme $\left\{ \begin{array}{l} \text{I r, 804–831} \\ \text{I v, 832–853} \end{array} \right.$

But 36 lines to the page seem excessive,² and we cannot well reduce the number materially by giving less space to the illus-

¹ But *And.* 780, attigam C

atticam *rell.* (±), seems to point to some original written in capitals and strengthens the suspicion that C and P may not have been copied immediately from the same manuscript.

² Yet C has 33 lines to the page (cf. Chatelain, Pl. IX), J of Plautus, 40 lines (Chatelain, Pl. IV a), B of Plautus, 36 lines on some pages and as many as 54 on

trations, for in such a manuscript the lines would be very close together.

Now suppose X to have lost 2 leaves, *e.g.* the inner sheet (or double leaf) of a quaternion. In order to divide the passage properly, 842-853 (4 broken lines) must be assigned to II *v*, and 804-819 to I *r*, *i.e.* exactly 16 lines to the page. There remain 2 illustrations and 24 lines of text (22 lines + 2 broken lines) to be contained in 2 pages. Such a division allows but 4 lines to the illustration.

$$\text{Scheme} \left\{ \begin{array}{l} \text{I } r, 804-819 \\ \text{I } v, \text{Illustration} -831 \\ \text{II } r, 832-841 \text{ (2 broken lines) + the illustration} \\ \text{II } v, 842-853 \end{array} \right.$$

This scheme is objectionable on account of the small number of lines to the page and to the illustration, a difficulty which may be partially met by supposing that in X there was a vacant space of several lines after verses 819 at the bottom of I *r*, yet not sufficient for the following illustration, and that at the same time verse 842, the beginning of a new scene, did not commence at the very top of II *v*.¹ In this way we might conjecture 18 lines to the page and 6 to the illustration.

$$\text{Scheme} \left\{ \begin{array}{l} \text{I } r, 804-819 + 2 \text{ vacant lines} \\ \text{I } v, \text{Illustration} -831 \\ \text{II } r, 831-842 \text{ (2 broken lines) + the illustration} \\ \text{II } v, 2 \text{ vacant lines} + 832-853 \text{ (4 broken lines)} \end{array} \right.$$

Thus far the prologue to the *Eun.* has not been brought into the discussion, principally for the reason that in certain manuscripts of Terence the prologues cover more space than would ordinarily be assigned to a like amount of text.² Now C¹ omits

others (Chatelain, Pl. II). In order to allow 10 lines to the illustration (a fair average), we might suppose X to have had even 38 lines to the page.

¹ Or else that X had more than 4 broken lines in 842-853.

² Dr. Warren has furnished me some statistics bearing on this point, and I select the following from the prologue to the *Heaut.* as preserved in the Bembinus:

Fol. xxx *r* has PROLOGVS, followed by verses 1-16
 " xxx *v* " verses 17-33
 " xxxi *r* " " 34-52 (omitting 48 and 49)

The Bembinus usually has 25 lines to the page.

all of this prologue (45 verses), whereas P¹ omits only verses 1-30. According to the theory of 16 (or 18) lines to the page in X, we must suppose that manuscript to have lost the leaf containing verses 1-30 before P was copied, and then the following leaf before C was copied. This second leaf must have contained verses 31-45 on the *recto*, the *verso* being blank.

I formerly thought that the omission of 1-30 by P¹ had some connection with the placing of 30-45 before 1-29 by DG, possibly indicating a corruption antedating X; but such could not have been the case, if my present theory of the genealogy of the manuscripts is correct, for X was complete when Y was copied from it.

If the prologue to the *Eun.* be admitted as a witness, its testimony will be given in favor of the theory that X contained 16 (or 18) lines to the page.

PARTIAL COLLATION OF THE DUNELMENSIS

The collation of the *Andria*¹ as given below will be made on the basis of the readings of P, that is, O will be noted only when it differs from P, not from Umpfenbach's text. Advantage will be taken of the collation to give Warren's readings for P whenever they differ essentially from those reported by Umpfenbach. Many unimportant orthographical variants will be omitted.²

Per. 11, agnitam	adgnitam P	63, iis sese dedere O
Prol. 16, decere <i>ex</i> decet		is se se dedere P
" 25, relictum		79, dehinc OP
33, his		84, abeuntis <i>ex</i> abientis O
44, beneficii OP		abeuntis P ¹ , abeuntes P ²
45, quid me uelis OP		86, phedram
53, quid, d <i>add. man. rec.</i>		88, pamphilus O
59, hec omnia		pamphyhus P

¹ The collation of the entire manuscript will probably appear in a contemplated critical edition of Terence. Cf. Kauer, *Wiener Studien*, 1898, p. 267.

² Orthography is not a strong point with the Dunelmensis. *Michi* is regular for *michi* and *mi*, *nichil* for *nihil* and *nil*, *e* or *ε* for *ae*, *h* for *k* at the beginning of words, etc.. etc.

96,	tum <i>ex</i> cum	329,	proficiscor OP ¹
102,	despondit	331,	cum is
117,	effertur OP	345,	oportune OP
121,	quę tum	349,	caues O
144,	posttridie		^p caues, <i>p et s a corr.</i> , P
151,	prescripisti	349,	tu illam OP
157,	operā do <i>ex</i> operando	353,	prehendit ait
171,	i presequar <i>corr. man. rec.</i>	356,	ascendo
191,	DAV. Hoc quid sit. SYM.	359,	redeunti, i a <i>corr.</i>
192,	DAV. Ita	362,	hostium
200,	inde	369,	ferre obolo
204,	sed hoc dico	370,	CHA. DAV. O
205,	^{hoc} tu dices (<i>sic</i>)		PAM. DV. P, <i>atram. nigro</i>
1, 4,	Archilis (<i>atram. nigro</i>) Mysis		<i>et in ras.</i>
	Ancilla	386,	hac OP
230,	committas O	393,	suam mutet OP (<i>sic</i> P ¹ <i>sine</i>
	committas P		<i>corr.</i>)
233,	dii OP	395,	speres OP ¹
235,	tristicie		speras P ²
238,	decreuerat	397,	equo animo O
238,	dare sese michi hodie O		animo <i>om.</i> P ¹
	^{hodie} dare sese mihi (<i>sic</i>) CP <i>corr.</i>	427,	alteri
	C ² P ²		<i>Nomina Gliscerium et Lesbia atramento nigro saec. xiii duabus personis data, quae in margine libri O pictae sunt.</i>
242,	quoniam me OP	441,	sinet
243,	glicerio	442,	recta <i>om.</i> C ¹ OP ¹ , <i>int. lin.</i> C ² P ²
256,	obstupui	444,	cauit ne
268,	die	451,	drachmis
276,	uerear	451,	obsonatum
289,	dexteram oro & O	458,	^t em illic O
	^{oro} dexteram & P		em illic P ¹ , em illec P ²
297,	in		<i>Folium, quod versus 459-480 continebat perdidit O.</i>
298,	seruabo, Mys.O	486,	perecastor <i>in ras.</i>
	seruabo †. Mys., <i>et in marg.</i>	495,	certi OP
	†. nemo in eam adimet nisi mors P	496,	retulit
301,	byrria	511 <i>seq.</i> , O = P ² C (<i>cf. Umpfenbach</i>)	
301,	pamphilo hodie nuptum O	515,	accersitum
		518,	extimplo
310,	pamphilo nuptum P	531,	nollit O
310,	sentias		nollet P
313,	prodat O		
	ptraat, ptra <i>in ras.</i> , P		
320,	consilii O		
	consilii <i>fortasse ex consiliis.</i> P		
327,	potes OP		

III, 3, Symo Senex. Chremes	689, sicine
536, paucis	702, CHA. fortis
542, ita <i>om.</i> O	703, PAM. Seio quid
546, si in rem	704, PAM. iam
565 <i>et</i> 566, perichum	708, quo hinc O
569, quod <i>in ras.</i> quot O ¹	quo hinc P
574, maxime O	709, michi incipit
maxume P	714, DAV. Tu . . . quapropter <i>int.</i>
577, queam O	lin.
quam ^e P <i>ex corr.</i>	
III, 4, Daus Seruus. Symo. Chre-	<i>Folium, quod versus 716-742 con-</i>
mes	<i>tinebat, perdidit O.</i>
585, <i>Hunc versum in marg. habet O</i>	745, quid illic OP, quid <i>ex</i> qui P ²
(<i>non</i> O ¹)	751, dicturan es O
586, habeo iam OP	dicturane es P, es <i>in ras. a</i>
604, astutia	<i>man. rec.</i> (dicturanes P ¹)
605, occidi <i>om.</i> O ¹ , <i>add. man. rec.</i>	771, pariendo OP
611, incolumen	775, tu scis
614, nec quidem me	786, hinc <i>om.</i> OP
616, heodum	804-853, <i>Cf. supra, pp. 329 f.</i>
622, despiciam	857, tristis ueritas O
IV, 1, Charinus Adulescens Pamphi-	tristis ^{se} ueritas P <i>corr.</i> P ²
lus Daus Seruus	DAV.
625, hoccinee st	834, CHR. tamen etsi O
626, necordia	DAV. <i>in ras.</i> P (CRE <i>eras.</i>)
627, gaudeant O	873, ac mitte O
gaudea t P	et mitte P, et <i>in ras.</i>
628, comparent	881, hanc
630, inde negando . . . paululum	882, hem <i>om.</i> OP ¹
<i>om.</i> O	888, ut <i>om.</i> O
659, illum O ¹ P ¹	895, at tandem dicat sine OP
illam CO ² P ²	V, 4, Pamphilus Crito Chremes
660, enicas C ¹ O ¹ P ¹	Simo O, PAM CRI CRE SYM
enecas C ² O ² P ²	P, <i>atram. pallido.</i> Crito
665, factum hoc est O	chremes symo senes tres
factum est hoc P	pamphilus adulescens P ²
671, primo O	908, CHR. hic. SYM. Simo men
primo <i>int. lin.</i> P	909, quare O
680, repperi	de
683, hem <i>int. lin.</i> O ¹	qua re P <i>ex corr.</i>
IV, 2, Mysis Ancilla. Pamphil' Adu-	910, adulescentulos
lescēs. Charinus. Daus	915, arbitrare OP
Seruus.	919, uide atqui OP
684, erit	922, ego <i>om.</i> OP
686, quid est	939, SIM. ne O
	S ^A .
	SIM. ne P

941,	odium		950,	Ch om. O
945,	Chr ipsa est Chr		967,	nactus
946,	milies		980,	huc

CALLIOPIVS RECENSVI

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CHARLES HOEING.

ARCHAEOLOGICAL DISCUSSIONS

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN RECENT PERIODICALS¹

GENERAL AND MISCELLANEOUS

The Scope and Purpose of Archaeology.—In *Rend. Acc. Lincei*, VIII, 1899, pp. 221–240, G. Patroni discusses what he calls a new orientation of archaeology. Scientific study began with Winckelmann, but since then archaeology has gradually become more distinct from the kindred sciences. Stress is laid especially upon the importance of preclassical and Christian monuments.

Greek and Roman Coins.—A recent volume in the Macmillan series of Handbooks of Archaeology and Antiquities is *A Handbook of Greek and Roman Coins*, by G. F. Hill (Macmillan, 1899; xv, 295 pp.; 31 cuts; 15 pls.; \$2.25). The book is a handbook to serve as an introduction to the study of ancient coins or as a reference book. Besides the body of the book, which treats with sufficient detail the various parts of its subject, there are five appendices,—‘Ancient Standards,’ ‘Table of Equivalents,’ ‘Mint-names on Roman Coins,’ ‘The Imperial Families of the Western Empire to A.D. 476,’ a ‘Select Bibliography,’—an Index of Subjects, a Greek Index, and a Latin Index.

Index of Sources and Resting Places of Statues.—In *R. Arch.* XXXIV, 1899, pp. 419–447, S. Reinach gives an index of the places and collections from which the ancient statues described in his *Répertoire* are derived, and tells who are now or have been their owners.

The Cat in Antiquity.—Unmistakable representations of domestic cats occur on Attic vases of the early fifth century, and later on Apulian vases and in Etruscan and Pompeian wall-paintings. Since they appear in the earlier instances as rare or strange pets, they probably were introduced from Egypt when that country was opened to foreigners in the sixth century, and gradually became more common. (R. ENGELMANN, *Jb. Arch. I.* XIV, 1899, 3, pp. 136–143; 3 cuts.)

The Turkey, Peacock, Cock, and Parrot in Ancient Art.—In *Athen.* September 30 and October 14, 1899, George Birdwood has two articles on the turkey, peacock, cock, and parrot in ancient art, called forth by the fact that in Frazer’s *Pausanias*, Vol. III, p. 259, a turkey is mentioned as represented on an ancient vase. The turkey, being an American bird, does not

¹ For an explanation of the abbreviations, see pp. 286, 287.

occur in ancient art. The peacock, cock, and parrot were known to the ancients, though not native in the regions about the Mediterranean. Their names and their occurrence in ancient literature as well as art are discussed. In *Athen.* November 4, 1899, J. G. Frazer calls attention to some errors of his own in the identification of other animals on the ancient vase above mentioned.

Sea Plants in Mythology.—Under the title 'Le mythe du chêne marin,' Constantin, in *R. Arch.* XXXIV, 1899, pp. 341–358, discusses the belief in the origin of living beings from marine plants.

Ancient Cameos.—In *Gaz. B.-A.* XXI, 1899, pp. 33–43, 101–116, E. Babelon writes, with twenty-five illustrations, of the ancient cameos in the Bibliothèque Nationale. He discusses chiefly the uses to which the cameos were put. They were used as personal ornaments, as well as upon jewel cases, toilet boxes, and other articles. Some of the largest cameos were probably richly set and deposited in temples as votive offerings. The custom of keeping such richly set cameos as reliquaries in churches in the Middle Ages was, then, naturally derived from Roman traditions. The history of several of the cameos in the Bibliothèque Nationale is touched upon.

The Evolution of the Grist-mill.—In *R. Arch.* XXXV, 1899, pp. 413–427 (7 figs.), L. Lindet traces the evolution of the grist-mill from the primitive stone for cracking grain, through the use of a roller upon a flat stone and that of a mortar and pestle, to the revolving mill of the Romans.

EGYPT

Chronology of the Middle Empire.—The Berlin Museum has received, for the most part as a loan from Dr. Reinhardt in Cairo, a series of papyri from the ancient city near the pyramid of Illahun. The new documents are letters, receipts, etc., relating to the treasury of a temple. Two of these show that Sirius rose on the sixteenth day of the eighth month of the seventh year of Usertesen III. This would be possible only in the years 1876–1873 B.C. The seventh year of Usertesen III fell therefore in these years. The twelfth dynasty, to which Usertesen III belongs, must therefore be dated from 1996 to 1780 B.C., about 150 years later than the latest conjectural date, that of Eduard Meyer, 2130–1930. (*Berl. Phil. W.* October 7, 1899. From the *Reichsanzeiger*.)

Egyptian Relief.—In *R. Arch.* XXXIV, 1899, pp. 321, 322 (pl. ix), G. Maspero publishes a stele with relief belonging to M. de Saint-Marceaux. He ascribes it to Upper Egypt of the time of the eleventh or twelfth dynasty.

Roman Officials in Egypt.—In *Jh. Oesterr. Arch.* I. II, 1899, Beiblatt, pp. 107, 108, A. Stein discusses the date of the Prefect Volusius Maecianus and incidentally some points in connection with other officials mentioned in papyri.

An Inscribed Scarab.—A rudely formed scarab from Egypt, inscribed $\lambda\alpha\psi$, a name known only as that of a dog, may have been hung as an amulet around the neck of a hound or pet dog. A superfluous ς follows the ψ . (E. A. GARDNER, *J.H.S.* XIX, 1899, p. 341; cut.)

L. Lusius Geta, Prefect of Egypt.—In *R. Arch.* XXXV, 1899, pp. 428–430, S. de Ricci maintains that in the inscription published on p. 185 of Vol. V of Petrie's *History of Egypt* (by Grafton Milne), the word erased

after Λούκιος Λούσιος was Γέτας, and identifies the man with the Lusius Geta mentioned by Tacitus, *Ann.* XII, 42.

BABYLONIA

The Management of Lands about 5000 B.C.—In *C. R. Acad. Insc.* 1899, pp. 394–419, J. Oppert discusses inscriptions in the British Museum relating to the measurement of lands. These belong to the dynasty called the first dynasty of Ur, which the author regards as earlier than the dynasty of Sargon I and Naram-Sin. The system of measurement is less simplified than at a later date. Translations of several inscriptions are given, and the signs for numbers as well as the method for surveying are explained. In some cases the proportion of produce of land to be paid by the farmer to his lord or the state is given. This, the author declares, has been misunderstood and explained as a term of measurement by Reisner and Thureau-Dangin. The change in the values of commodities, especially silver, in later times, is briefly discussed.

SYRIA AND PALESTINE

Ptolemaïs-Ake.—In *B. Arch. C. T.* December, 1899, pp. ii f., J. Rouvier describes a bronze coin of Ptolemaïs with the inscription ΑΚΕ. The coin is dated ΛΜΔ (44), *i.e.* 3 B.C. Evidently, then, for a brief period under Augustus the city of Ptolemaïs resumed the name Ake. Remarks were made by E. Babelon.

El-Kahf and the Cave of the Seven Sleepers.—In *C. R. Acad. Insc.* 1899, pp. 564–576, Clermont-Ganneau discusses the legend of the seven sleepers, especially the place where they are supposed to have slept. He decides in favor of the cave,—an ancient tomb chamber,—at El-Kahf or Maghâret el-Kahf, four and a half English miles south-southeast from 'Ammân. The cave is described, and two plates give plans and sections and views of the façade of this tomb and another near it from photographs by Brünnow.

Syrian Antiquities.—In *R. Arch.* XXXV, 1899, pp. 34–53, Paul Perdrizet discusses: (4) The dedication of the Propylaea at Gerasa (see *Am. J. Arch.* 1893, pp. 449 ff.). (5) An inscription from Eleusis ('Εφ. 'Αρχ. 1894, p. 210) mentioning the Phoinikarch Ptolemaeus of Gaza. (6) The question to what province Gerasa belonged, concluding that Gerasa belonged to Syria until 162 A.D., to Arabia from 162 to 195, then to Syria Phoenice, then later to Arabia. (7) The *πολίτευμα* of the Caunians at Sidon. This body is mentioned on a painted stele from Sidon (*R. Arch.* 1898, II, pp. 109–112). The use of the word *πολίτευμα* to designate half-independent foreign inhabitants in cities, especially its application to the Jews at Alexandria, is discussed. (8) A coin of Gythium found at Bosra, which confirms what is known of the commercial prosperity of Gythium under the Severi. (9) Gadara *χρηστομονοσιᾶ*. This epithet occurs on an epitaph found near Lake Tiberias, and is interpreted to mean “where the Muses are cultivated.” (10) *Λιβράριος ἀναγκῆος*, a title occurring in an inscription at Baalbek. (11) Thracian names in Syrian inscriptions. (12) The Bacchic mosaic at Medaba. The inscriptions 'Αριάδνη, Βάνχη, and Σατίρος show the nature of the scene represented.

Charac-Moba.—Among coins recently sent from Palestine to Mr. L.

Hamburger of Frankfurt are two, quite unknown hitherto, of Charac-Moba, in the land of Moab (cf. Isaiah, xv, 1). Both are "Greek imperial" of the Emperor Elagabalus, and show the Roman conception of Fortuna, with rudder and cornucopiae. One has the town-name in its Greek form XAPAXMWBA, while the other is said to show the ethnic form XAPAX[MWBH]NQN; — though the cut given by E. Babelon shows only the first five letters. (*R. Num.*, 1899, p. 274.)

The Siloah Inscription. — In *Z. D. Pal.* V. XXII, 1899, pp. 61–64, the late Professor Albert Socin, who died June 24, 1899, has a brief discussion of the Siloah inscription with a translation. Pl. ii is a fac-simile of the inscription.

ASIA MINOR

The Altar at Pergamon. — In *Sitzb. Berl. Akad.* 1899, pp. 612–625 (7 figs.). II. Schrader discusses the place of offering in the Pergamene altar. Within the colonnade of the great altar was the altar proper, a structure probably of elongated rectangular form. Upon a simple base rose a smooth wall, with a frieze of a rich palmetto pattern and an Ionic cornice adorned with a running vine. Fragments of all parts of the structure are preserved. Two flights of steps led to the top of this structure from the eastern side, the side away from the entrance. The top was adorned with statues of gods, about three-fourths life size, parts of which have been found (*Beschr. d. Pergamenischen Bildwerke*, p. 26). Upon the top was the altar of ashes mentioned by Pausanias, V, 13, 8. This raised the height to about 6 m. above the platform upon which it stood, making the entire height from the ground about 12 m. or 40 feet. (*Ampelius, liber memorialis, miracula mundi* C. 14.)

Work at Pergamon, 1886–1898. — *Athen. Mith.* XXIV, 1899, Heft 2 (pp. 97–240; pl. ix; 28 cuts), is entirely given up to an account of 'Die Arbeiten zu Pergamon, 1886–1898,' by A. Conze and C. Schuchhardt. Water-works, roads, and sites in the neighborhood have been investigated and are described in detail. Plans of Elaea, Pitane, and Atarneus have been prepared. Hadrianuteba, Sandiana, and Doidye have been identified, and several other sites discovered. Fourteen fragments of sculpture are described, and sixty-four inscriptions from Pergamon, besides eighty-nine inscriptions (mostly fragmentary) from the neighborhood, are published.

The Julian Calendar in Asia Minor. — Of the documents relating to the introduction of the Julian calendar into the province of Asia, under Augustus, fragments have been found at Apamea, Eumeneia, Dorylaeum, and finally at Priene. The text, based chiefly on the Priene copy, is published in *Athen. Mith.* XXIV, 1899, pp. 275–293, with introduction by Th. Mommsen, and epigraphical commentary by U. von Wilamowitz-Möllendorff. From one of the documents it seems that the law of Sulla which regulated the movements of the proconsuls also regulated the election of provincial magistrates. This interference of the Republic in the arrangements of the dependent provincial cities is new. The special importance of the text from Priene lies in fixing definitely the relation of the Asiatic calendar, with the Macedonian names for the months, to the reformed Roman calendar. The style of the message and the decree is good, belonging to the type of *περὶ ὕψους* and Philo, which led to the classical revival. Another example of this Asiatic style is found in *Inscriptions of the British Museum*, 994, from Halicarnassus.

Antiochia Chrysaoris. — In *Cl. R.* 1899, pp. 319–321, W. R. Paton contends that the city called Antiochia Chrysaoris, the sanctity of whose territory is confirmed by an Amphictyonic decree (*B.C.H.* XVIII, p. 235) is Alabanda. Radet, *Revue des Universités du Midi*, II, p. 275, had identified Antiochia Chrysaoris with Mylasa. Historical and epigraphical evidence is advanced for the new identification.

Houses in Priene. — The dwelling-houses at Priene are all of one type, having the anteroom of the main apartment opening to the south on the court, and smaller rooms communicating with it on one or both sides. The court was never entirely surrounded by colonnades. These houses make Vitruvius's description of a Greek house clear, and enable us to follow the development back to the Homeric Megaron. (TH. WIEGAND, June meeting Berl. Arch. Gesellsch. *Arch. Anz.* 1899, p. 133.)

Diadems of Priests. — In *Jh. Oesterr. Arch. I.* II, 1899, pp. 245–249 (pl. vii; 6 figs.), G. F. Hill publishes and discusses (in English) several heads and fragments from Ephesus. The diadems worn by the persons represented are adorned with busts, some of which are identified as those of Septimius Severus, Caracalla, and Geta. Coins are cited, and one from Tarsus published, in comparison with these heads. The diadems are those of *Augustales*, priests of the emperors. A fragment of a bronze diadem from Ephesus is also published.

GREECE

ARCHITECTURE

The Origin of Acroteria and Antefixes. — In *Jh. Oesterr. Arch. I.* 1899, pp. 199–201 (3 cuts), Georg Treu confirms Benndorf's theory of the origin of acroteria by calling attention to the terra-cotta antefix. *Olympia*, III, pl. 88, with a gorgoneion in an incuse rectangle with pointed gable upon a semicircular plate. A later form is seen in the limestone shrine from Amorgus in Dresden (*Arch. Anz.* 1898, p. 53). The so-called Nike of Archermus was really an acroterium.

Pre-Persian Buildings on the Acropolis. — The fragments of pre-Persian architecture on the Acropolis at Athens belong to six Doric buildings, the most important of which was the predecessor of the Athena temple of Pisistratus, on the same site. It was a double *templum in antis*, with marble metopes and flattened echinus. The Typhon and the group of Triton and Heracles belong to its pediments, and it was richly ornamented with polychromy in archaic patterns. Portions of the buildings have been set up in the small museum. (TH. WIEGAND, July meeting Berl. Arch. Gesellsch. *Arch. Anz.* 1899, 3, p. 135.)

The Optical Qualities of the Greek Theatre. — In *Athen. Mith.* XXIV (1899), pp. 310–320, W. Dörpfeld, 'Die optischen Verhältnisse des griechischen Theaters,' discusses the views advanced by A. Müller, *Untersuchungen zu den Bühnenaltertümern*. He shows that the spectator in the upper rows was not hindered by those in front of him, and that the spectators in the proedra did not command a good view of a high stage.

SCULPTURE

The Evolution of Greek Sculpture. — In *Gaz. B.-A.* XXI, 1899, pp. 177–188 (4 figs.), and 313–324 (5 figs.), Henri Lechat traces the development

of Greek sculpture from the beginning to the end. The earliest Greek sculptors owed little to Egypt or the East. With more and more success the archaic sculptors strove for truth in form. Phidias attains this truth, giving it sovereign beauty, and shows that "life is not incompatible with the most ideal perfections of form." Praxiteles adapts the old themes to a new taste. He is the master of grace and rhythm. The art of Scopas is powerful, pathetic, and dramatic, appealing more strongly to the multitude, while Lysippus is a realist. The Pergamene sculptors combine the qualities of the art of Scopas and Lysippus, while the sculptors of Alexandria combine realism with Praxitelean grace. Later their art became more picturesque. In the Hellenistic period all kinds of sculpture were practised. Greek sculpture is pagan, not Christian. It exhibits the feelings of the Greeks at all periods of their history. Hence the importance of collections of casts, such as those now being formed at the University of Paris and the Louvre.

Studies in Early Greek Art. I.—The earliest, hand-fashioned, shapeless Greek terra-cottas, corresponding to the geometric period of vases, were succeeded by well-modelled hollow figures, formed in moulds, a varied and widely diffused class which appears to be native in Samos. The corresponding advance in sculpture is that from the planklike figures, such as Nicanor's Delian statue, to the cylindrical, draped marble from Samos in the Louvre; and it is safe to conclude that the step was taken when bronze-casting was applied to statues by the Samian artists Rhoecus and Theodorus, between 600 and 550 B.C. The cylindrical form is exactly such as would first be attempted in this new technique, and it is imitated in the moulded terra-cottas, as well as in the marble. (F. WINTER, *Jb. Arch. I. XIV*, 1899, 2, pp. 73-78.)

The Archaic Marble Head in the Sabouroff Collection in Berlin.—The peculiarity of short hair in a head corresponding in every other way to the long-haired early heads, such as the Calf-bearer, is not due to portraiture, but to the fact that the head originally wore a bronze helmet. The surface of the hair was never finished like the beard, and a piece has been cut away over the forehead to make room for the visor. A head of Hermes, from Thera, had a hat similarly set on, without fastenings. (B. GRAEF, *Jb. Arch. I. XIV*, 1899, 2, pp. 87-89.)

Archaic Bronze Statue.—A hollow bronze statue was found in 1897 in the water of the Corinthian Gulf at a place called Agios Basileios (cf. *Am. J. Arch.* 1897, p. 351). Here is a small bay, which probably served as the harbor of Plataeae. Some remains of ancient buildings exist near the shore, and in the church is an inscription ΧΑΙΑΗΡΑΚΛΕΙΔΟΥ. The statue is 1.18 m. in height. The head, which seems to have been broken off and fastened on again in ancient times, is almost perfectly preserved, but the rest of the statue was found broken into many pieces and much defaced. It has been restored, all except the arms, which are missing. The base bears the inscription τὸ Ποσειδάωνος : ἡαρός in archaic letters, from the shapes of which, taken together with the form of the name Ποσειδάωνος, the inscription may be regarded as Boeotian. Poseidon himself is no doubt represented. The god is nude, standing with his right foot advanced. He wears a pointed beard and drooping mustache. His hair is curled over his forehead, and forms a roll at the back of the head. Above the curls

and the roll is a simple band or circlet. The eyes were once set in of some other material than bronze. The right arm probably extended downward and forward, the right hand holding a dolphin. The raised left hand probably held a trident, the butt of which rested on the ground. The head is compared with the bronze Zeus, *Ausgr. von Olympia*, III, pl. 22, and the bronze in Athens, *Musées d'Athènes*, pl. 14. It is a beautiful piece of work of the end of the sixth or possibly the beginning of the fifth century B.C. The statue was probably made at Athens, and dedicated at the harbor in the waters of which it was found. (D. PHILIOS, 'Εφ. 'Αρχ. 1899, pp. 57-74; 2 pls.; cut.)

The Ephebus of Tarsus. — In *R. Arch.* XXXV, 1899, pp. 19-33 (3 pls.; 2 cuts), A. Joubin discusses the ephebus from Tarsus, now in Constantinople (*Catal. des bronzes du Musée de Constantinople*, No. 2; *Gaz. Archéol.* 1883, pl. 1). Fragments of the legs, hitherto unpublished, enable the figure to be partially restored. The youth stood with his weight on both feet, though rather more on the left, and raised both hands above his head with the elbows bent. The right hand was higher than the left. In his hands he held some burden, the nature of which is unknown. The style and date of the bronze are discussed. Comparison with other statues shows that this is an Attic work of the fifth century B.C. Its nearest analogies are the athlete in Florence (*Röm. Mitth.* 1882, p. 79), two heads in the Louvre (*Athen. Mitth.* 1891, pls. 4, 5; FURTWÄNGLER, *Intermezzi*, p. 10), the Hermes Ludovisi, and related figures. The artist is under the influence of Critios and Nesiotes, though more advanced than they. He worked before 450 B.C., and preceded Myron.

Replicas of the Medici Torso. — In *Jh. Oesterr. Arch.* I. 1899, pp. 155-173, Paul Herrmann publishes (2 pls.; 4 figs.) and discusses two replicas of the Medici Torso in the École des Beaux Arts in Paris. The new replicas are in the Casa de Pilatos in Seville. Both are of about the same size as the Medici Torso, but a little smaller. Both are restored. The first (Hübner's Catalogue, No. 830) has modern arms, a modern shield, modern battle club, and modern helmet. Beneath the modern helmet, however, part of an original Attic helmet is visible. The head is ancient, and belongs to the figure. The work is of late date and poor. The head is held nearly upright, and looks almost straight forward, turning very slightly to the left. The second figure (Hübner, No. 840) is of better workmanship, but head, both arms with the attributes (shield and spear), and the feet, so far as they are nude, are modern. Both statues came from Italy, and appear to have been part of a gift from Pope Pius V to Per Afan de Ribera, first Duke of Alcalá. Comparison with the Medici Torso shows differences of treatment, but it is evident that the two statues at Seville and the Medici Torso are replicas of the same original, but that none of the three is the original. The style is evidently that of the fifth century B.C., and of the school of Phidias. Comparison with the reliefs from the base of the statue of Nemesis at Rhamnus, and with other works, points to Agoracritus as the probable author of the colossal Athena represented by these three copies. It is shown that the Medici Torso cannot be the Athena from the eastern pediment of the Parthenon.

Athena Lemnia. — Actual measurements and comparison of sections and breaks fully establish Furtwängler's contention that one of the 'Lem-

nian' statues at Dresden has its original head, and that the headless one and the Bologna head belong to replicas of the same original. The relatively small size of the face is no evidence against its being the work of Phidias, and the style favors this.

One of the rival claimants to the name of Athena Lemnia is disposed of by comparing the foot-marks on the Hygieia basis by the Propylaea with the Farnese Athena at Naples, the Hope Athena, and another replica in the Vatican. These are all copies of the work of Pyrrhus, who was probably a metic, rewarded with citizenship for this work, as the ethnic *'Αθηναῖος* is added to the original artist inscription, destroying its symmetry. (F. STUHNICZKA, July meeting Berl. Arch. Gesellsch. *Arch. Anz.* 1899, 3, p. 134.)

Painted Marble Head in Athens.—The following appear to be the facts with regard to the painted marble head in Athens (*Nat. Mus.* No. 177), though the fixed glass case which protects it prevents very close examination. The back is broken off; the top has contact surfaces as if for a helmet; the hair is covered with dark red under-paint, and in places shows the surface gilding. The skin is highly polished, but shows no painting. The eyebrows are painted like the hair; the eyeballs are of a white stone; the irises and bronze eyelashes are missing, but dark streaks from the oxidation of the latter extend down the cheeks. The high triangular forehead and the treatment of the hair put any identification with the Athena Parthenos out of the question. (P. WOLTERS, *Jb. Arch. I.* XIV, 1899, 3, pp. 143-145; cut.)

A Papyrus with Chronological Data.—In the second volume of *The Oxyrhynchus Papyri* edited by Grenfell and Hunt, and published by the Graeco-Roman Branch of the Egypt Expl. Fund, is a list of Olympic victors for seven Olympiads, 476-448 B.C., omitting Ol. LXXX, 460 B.C. Théodore Reinach discusses it, *R. Arch.* XXXV, 1899, pp. 399-412. The list fixes the following dates of importance to the historian of literature and art: Ol. LXXXVI, 476 B.C., Pindar, *Olymp.* 1 (to Hiero). 2, 3 (to Theron); Bacchylides, Ode V (to Hiero); Pindar, *Olymp.* 10 and 11 (to Agesidamus of Locri); Pythagoras of Rhegium, statue of Astylus of Syracuse. Ol. LXXVII, 472 B.C., Pindar, *Olymp.* 12 (to Ergoteles of Himera); Pythagoras, statue of Euthymus of Locri; Micon, statue of Callias of Athens. Ol. LXXVIII, 468 B.C., Pindar, *Olymp.* 9 (to Epharmostus of Opus); Bacchylides, Ode III (to Hiero). Ol. LXXIX, 464 B.C., Pindar, *Olymp.* 7 (to Diagoras of Rhodes). Ol. LXXXI, 456 B.C., Myron, statue of Timanthes of Cleonae. Ol. LXXXII, 452 B.C., Pindar, *Olymp.* 4 (to Psammis of Camarina); Bacchylides, Odes VI and VII (to Lachon of Ceos); Pythagoras, statue of Leontiscus of Messina; Polyclitus, statues of Pythocles of Elis and Aristion of Epidaurus. Ol. LXXXIII, 448 B.C., Naucydes, statue of Chimon of Argos. It is evident that the dates here given do not, in every instance, agree with those hitherto accepted.

Hermes Discobolus?—Georg Habich sees a type of Hermes in the standing discobolus in the Vatican (*Jb. Arch. I.* XIII, p. 57). Michaelis replied, *ibid.* pp. 175 f. (cf. *Am. J. Arch.* 1899, pp. 120, 298). Now Habich publishes the Amastrian coin from the specimen in the British Museum, which shows quite closely the pose of the statue, with the addition of a *caduceus* held in the right hand. He further adds, in support of his contention, another coin, in bronze, of Commodus, struck at Philippopolis in

Thrace, with a similar but more complicated reverse type. Both coins leave something to be desired in the matter of preservation. (*J. Int. Arch. Num.* 1899, p. 137.)

The Bardini Athlete.—In the *Festschrift* recently published in honor of Otto Benndorf, P. v. Bienkowski published a statue in the possession of the dealer Bardini in Florence. The same figure is published by Arndt-Amelung, *Einzelaufnahmen*, II, p. 24. Bienkowski's photographs are repeated and the statue is subjected to renewed examination by Franz Studniczka, *Jh. Oesterr. Arch.* I, 1899, pp. 192–198; 3 figs. The statue lacks both arms, and the legs all except the upper part of the thighs. The head is shown not to belong to the body. Comparison with other figures and heads shows that this head is a replica of the doryphorus of Polyclitus, while the torso is a replica of the diadumenus.

Athena by Alcamenes.—The idea of Emil Reisch that Alcamenes was the author of the group in the Athenian Hephaestus temple, and therefore the creator of the mild, peaceful Athena type, is supported by a head in the National Museum at Stockholm, which undoubtedly has the characteristics of Alcamenes' work. Its origin is the same as that of the head of the Athena statue from Crete in the Louvre, and, like that, it is useful for the restoration of the Cherchel statue. (LENNART KJELLBERG, *Röm. Mith.* 1899, pp. 114–118; pl.)

Original Greek Statues in Venice.—In *Abh. Mün. Akad.* XXI, ii, 1899, pp. 275–316 (7 pls.; 10 figs.), A. Furtwängler publishes and discusses twelve marble statues, less than life size, in Venice. All are draped female figures. Ten are in the Museo Archeologico in the Doge's Palace, one in the Museo Civico-Correr. 1. A statue of Pentelic marble, removed from the courtyard of the Doge's Palace to the Museo Archeologico in 1811. (Dütschke, *Antike Bildwerke in Oberitalien*, V, No. 73; Clarac, *Mus. de Sculp.* 460, 854.) The head is of Roman work, and does not belong to the torso, which is an Attic original of the fifth century B.C., inspired by the Athena Parthenos. The remaining originals in the Doge's Palace came from the Grimani collection. They are of Parian marble. All the statues probably belong together, and, as two represent Demeter, they probably came from some sanctuary of Demeter in Asia Minor or on one of the Greek islands. 2. Dütschke, V, No. 210. About half life size. Forearms and some minor parts restored. Apparently a work of a Peloponnesian (Sicyonian) artist, about 440 B.C. 3. A somewhat smaller figure, with modern head, right forearm, left hand and feet, Dütschke, V, No. 234; Clarac, pl. 943, 2423. Ascribed to a second-rate artist of the latter part of the fifth century B.C., and compared especially with the Attic figure from Peiraeus, Cavvadias Γλυπτά, No. 176; Friederichs-Wolters, No. 1209. 4. Dütschke, V, No. 80. Head modern. Wrongly restored with cornucopia in the left hand. The lower forearm, feet, and various details are modern. Earlier than the pediment figures of the Parthenon, and resembling in drapery the pediment figures at Olympia. 5. Dütschke, V, No. 219. The head is original. Right forearm, left forearm with cornucopia, and various minor parts are modern. Compared especially with a fine head in Taranto (*Berl. Phil. W.* 1888, col. 1452). Ascribed to the late fifth century. 6. Dütschke, V, No. 310; Clarac, pl. 554, 1179. Restored as Hygieia. The head is ancient, but does not belong to the figure. Ascribed to the period of the Peloponnesian War.

7. Dütschke, V, No. 207; Clarac, pl. 640, 1450. The head, most of both arms, and some minor parts are modern. Especially compared with the "Venus genetrix" ascribed to Alcámenes. 8. Dütschke, V, No. 181. Less than half life size. The head, though ancient, does not belong to the body. The head is evidently Demeter, characterized by a veil. The drapery is simpler than in the last-mentioned figure, reverting to earlier methods. The figure is ascribed to the early fourth century. 9. The finest work of the series. Dütschke, V, No. 203; Clarac, pl. 774, 1930. Only the forearms and some details are restored. Calathus and veil show that Demeter is represented. The beauty and dignity recall the Demeter of Cnidus, but this Venetian Demeter seems somewhat earlier. The statue in the Louvre (*Catal. sommaire*, No. 2283; Clarac, pl. 978 B, 2524 F; Reinach, *répertoire* II, 240, 9) shows a later development of the use of the veil, and is ascribed to Praxiteles. 10. Dütschke, V, 108. Height, 1.11 m. The head is lost, but an ancient head, of Hellenistic times, is set upon a modern neck. The figure belongs to the first half of the fourth century B.C., and probably represents Cora. 11. Dütschke, V, 215. The figure belongs to the first half of the fourth century, B.C. The head is a Roman portrait; the neck, right arm, left hand, and a few other parts are modern. 12. In the Museo Civico-Corner; from the Morosini collection. Of Parian marble; about one-third life size. Head and forearms are gone. The general arrangement of the figure is derived from the Athena Parthenos, though the treatment of drapery is later. Artemis is represented, accompanied by her dog, now partly broken away. The article is, for the most part, a detailed study of the drapery of the Venetian statues in comparison with that of other Greek works. It is shown how the drapery known in the Olympian female figures, and the drapery of the Athena Parthenos, are developed in Athens and elsewhere; how the less simple and less natural drapery of the so-called Venus genetrix is supplanted in the early fourth century by a simpler, more severe treatment, which then develops into the Praxitelean style. The drapery of the Eirene of Cephisodotus is, therefore, not an isolated phenomenon. An appendix states that in the relief in Venice (Roscher's *Lexicon d. Mythologie*, I, coll. 2157) the figures are genuine and ancient, but the accessories are much restored. So, too, the relief in the Giardino Giusti at Verona (Jahn, *Bilderchroniken*, pls. 2, 6) has been worked over in modern times.

Portrait Head of Plato. — In *Jh. Oesterr. Arch.* I, II, 1899, pp. 250-254 (pl. iv; 3 figs.), O. Benndorf publishes and discusses a somewhat ill-preserved marble head of Plato, recently acquired by the museum in Vienna from an Athenian dealer. Other portraits of Plato are compared, and two of the figures represent a double herm of Plato and an unknown Greek in the museum at Athens.

Praxitelean Tripod Base. — The marble tripod base in Athens, Friederichs-Wolters, No. 2147, Cavvadias, *Catalogue des Musées d'Athènes*, 1895, p. 71, No. 1463, bears upon its sides three reliefs representing Dionysus and two winged Victories. Analysis of the style in connection with that of other works, among them the reliefs from Mantinea, the so-called Urania in the Vatican, and a figure from the Parthenon frieze, makes it probable that Praxiteles was the author of the reliefs of the tripod base. Perhaps this is what remains of the monument referred to in the inscription *C.I.A.* II, 1298. (OTTO BENNDORF, *Jh. Oesterr. Arch.* I, II, 1899, pp. 255-269; pls. v-vii; 9 figs.)

Likenesses of Maussolus and Alexander.—In *Röm. Mith.* 1899, pp. 81–90 (1 fig.), J. Six continues his 'Ikongraphische Studien.' Coins of Cos show that the statue from Halicarnassus, formerly supposed to have stood in the chariot on the Mausoleum, really represents Maussolus. The Heracles head on some coins of Syria and Mesopotamia is claimed as a portrait of Alexander, and the Sidon sarcophagus and the head in the Lateran support this claim. The type of the Louvre statue may possibly have been created by Lysippus in 336 B.C. Certain coins having a head with the horns of Zeus Ammon, and an elephant skin, represent not Alexander the Great (cf. IMHOOF-BLUMER, *Griech. Porträtköpfe*, p. 14), but Alexander the son of Roxana (cf. MASPERO, *Archéologie Égyptienne*, p. 229, fig. 202).

Alexander's Hunt.—An epigram found *in situ* at Delphi has identified the chamber in which stood the bronze group by Lysippus and Leochares, commemorating the rescue of Alexander by Craterus, when in peril at a lion hunt. The first satisfactory clew to the composition of the group is found in a small intaglio belonging to Mr. A. J. Evans. In the foreground are the bodies of the lion and the half-prostrate king, while behind, Craterus, on a rearing horse, strikes a vertical blow at the lion. The dogs are omitted for want of space, but enough is given to show the pyramidal grouping, the spirited action, and the half-realistic, half-heroic treatment of the figures. With this incident, a favorite Oriental motive made its entrance into Greek art. (P. PERDRIZET, *J.H.S.* XIX, 2, 1899, pp. 273–279; pl.)

Two Statuettes of Aphrodite.—In *R. Arch.* XXXV, 1899, pp. 369–375 (pls. xx, xxi; cut), S. Reinach publishes two statuettes of a nude Aphrodite. The first is from a cast in Cologne, the original of which is lost. A bronze statuette (*Répertoire de la Statuaire*, II, p. 341, No. 2), now in the possession of P. Dubois, is also published. The right hand shows the same motive as that of the Cologne cast, being raised as if in adjusting a necklace, the left arm is gone almost from the shoulder, but evidently hung down, though the forearm was probably bent upwards. The left leg is gone below the knee. This bronze cannot be the original of the work from which the Cologne cast is taken, but is an older representation of the same motive, belonging to the earlier part of the fourth century B.C. Other statuettes, e.g. one in the British Museum (WALTERS, *Catal. of Bronzes*, pl. v, No. 1084; *Répertoire de la Statuaire*, II, pp. 341–344), repeat the same motive. It may have originated with Praxiteles, and was certainly made popular by him, though whether it is the motive of his *Pseliounene* or not is uncertain.

Asclepius and his Family.—*Athen. Mith.* XXIV, 1899, pp. 294–309, pl. x, contains 'Epidaurische Weihgeschenke, iii,' by Chr. Blinkenberg, who describes and discusses a relief representing Asclepius and Machaon in the presence of two diminutive adorants, who are separated from the divinities by an altar. Behind Asclepius are the rest of his family, Epione, Panacea, Iaso, and Podalirius, united in a family group, and evidently not connected with the worshippers. The greater part of the article is devoted to establishing the correctness of the identification of the members of the family, which was evidently recognized at Epidauros in the fourth century, though most of the members held no prominent place in the cult.

The Lion of Admiral Halgan.—In *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 27–117, E. Michon discusses some monuments in the department of Greek and Roman antiquities of the Louvre. Several lions

in the department are briefly described. The Lion of Admiral Halgan (cut) is shown from letters of the admiral and others to have been found, apparently in 1824, in an ancient necropolis near Cape Zoster, between Athens and Sunium. The region is stony, and the reports call it the "champs Phelléens," evidently the Greek *φελλείς*. The lion was no doubt a grave monument. It was probably found by Fauvel, who carried on excavations in the necropolis mentioned.

Aphrodite at her Toilet.—In *Gaz. B.-A.* XXI, 1899, pp. 360-368, E. Babelon publishes (pl.) and discusses a statuette of sapphirine chalcedony found in 1897 at Kirmasti, near Cyzicus, where several other objects were found at the same time. A draped Aphrodite is standing with her weight on her right foot. She wears a necklace of real beads and a gold bracelet. Beside her is a small herm of Priapus. Aphrodite is arranging her long locks of hair. The statuette is of somewhat clumsy workmanship, and is to be compared with cameos rather than with works of large sculpture. In spite of the fine material used, the figure was colored. It is probably a work of the Pergamene school, belonging to a time before 100 B.C. The statuette is now in the possession of Mr. E. Rothschild.

A Thessalian Bust of Ge.—In *R. Arch.* XXXIV, 1899, pp. 329-334 (pl. xii), A. Joubin publishes a bust from Phaestus, now in the museum at Constantinople, with a dedication *Γὰ πανταρέτα*.

The Satyr with a Wine-skin.—The action of the youthful satyr in Naples (BAUMEISTER, *Denkmäler*, I, p. 358, fig. 385; REINACH, *Répertoire de la Statuaire gr. et rom.* II, p. 142, No. 6) has been explained in various ways. Adrian Blanchet, in *B. M. Soc. Ant. Fr.* 1899, pp. 175-176, thinks the satyr is astonished. He expected wine to flow from the skin and sees water flowing from it. The figure was used for a fountain. A terra-cotta from Egypt, of the third or fourth century B.C. (RAYET, *Monuments de l'Art Antique*, pl. 85, No. 2), representing a satyr who has opened a bag of wind greatly to his own astonishment, offers a certain analogy to the Naples figure as now explained.

Rhea from Cyzicus.—A passage in *Zosimus*, II. 31 (cf. *Apol. Rhod.* I, 1117 f.), is the basis of an article by W. Amelung in *Röm. Mith.* 1899, pp. 8-12, on the wooden statue of Rhea removed by Constantine from Cyzicus to Byzantium. At that time the lions which had formed part of the group were removed and the figure was altered to represent a woman praying. The goddess was undoubtedly represented as the *πόντια θηρῶν* of the Greeks, of the type of the seventh or sixth century B.C. A stele of Dorylaeum of the sixth century B.C. (*Athen. Mith.* 1895, p. 1) shows the same representation of Cybele. Cybele was evidently established as the protectress of Byzantium, holding a position similar to that of Tyche at Rome.

Bronzes in Constantinople.—In *R. Arch.* XXXV, 1899, pp. 202-209, A. Joubin publishes (pls. xvii-xix; 2 cuts) five bronzes in the museum at Constantinople: (1) (REINACH, *Répertoire de la Statuaire*, II, 283, 2, JOUBIN, *Catalogue des Bronzes*, No. 79.) Found at Abydos. An archaic statuette of Athena, lacking the right arm, and both legs below the knee. The face is much injured. The proportions are heavy. The style is less advanced than that of the figurine 793 (*de Ridder*) of the Acropolis, but freer than that of 782. It belongs to the second half of the sixth century B.C. Where such figurines were made is uncertain. Chios, Samos, Naxos, and Chalcis are

suggested. (2) (JOUBIN, *Catalogue*, No. 26.) Statuette of a standing, bearded, nude Heracles. The head is wreathed with laurel. In the right hand is part of the club on which the hero was leaning when the statuette was intact. The left arm is wanting. It probably held the lion skin. The type may go back to Scopas. The statuette is careful work of the Hellenistic period. (3) Statue of a child holding a duck. (JOUBIN, *Catalogue* No. 6.) From Seleucia in Cilicia. Excellent Hellenistic work. Life size (height, 0.78 m.). (4) Group of wrestlers. (*Jb. Arch.* I. 1898, pp. 177 ff., JOUBIN, *Catal.* No. 29.) Not fine work. Similar to REINACH, *Répertoire*, 234, 2. It may well be a work of Roman imperial times, and there are indications that this and similar works were made in Lower Egypt. (5) (JOUBIN, *Catal.* No. 3.) A fragmentary statue of more than life size (height, 2.10 m.) from Samsoun. A nude man in the attitude of an orator. Apparently a portrait. Provincial work of late date.

VASES AND PAINTING

Vases from Menidi. II. — The vase-fragments from the *dromos* of the beehive tomb are in a continuous succession of styles, from Mycenaean down to developed red-figured, and include, beside the pots used in preparing food, votive offerings in the shape of shields, tablets, horses, singly as well as in pairs and fours with drivers but with no chariots, lecythi and drinking vessels of various shapes, ewers, amphoras, and, especially characteristic and numerous, large bowls with high support used for bath-offerings. Evidently the worship of the dead was carried on here without interruption from the earliest times until it came to a sudden close in the fifth century, probably at the time of the Peloponnesian War, when Attica was occupied by the Lacedaemonians. (P. WOLTERS, *Jb. Arch.* I. XIV, 1899, 3, pp. 103-135; 31 cuts.)

Geometric Vases from Greece. II. — In the *Jb. Arch.* I. XIV, 1899, 2, pp. 78-86, S. Wide publishes (18 cuts) and describes seven specimens of Boeotian geometric ware, chiefly in Athens; also the few known pieces of Laconian and Argolic geometric ware, each of distinct style, though rare; and two simple amphoras from Troezen, perhaps of Attic origin. The Laconian decoration is crude; the Argolic recalls Mycenaean treatment. The Boeotian examples come down to the time of eastern influence.

A New Vase of the Dipylon Class. — A "Dipylon" lebes from Thebes, recently acquired by the British Museum, has a bireme crowded with rowers on one side, and two *bigae* driven by figures in feminine costume, on the other. Both scenes probably represent races in the funeral games of some great man. The same principle applies to all "dipylon" chariots, shown in procession before the actual race, and also ships, when not engaged in combat. These last may indicate the manner of death, like the stele of Dexileos. The single rider who follows the chariots on the Theban vase, dismounting or sitting his horse in a peculiar fashion, if he represents any part of the funeral display, is post-Homeric. The attitude of the steersman who is about to enter the ship, taking leave of a woman who holds a crown, anticipates the sentiment of the parting scenes on Attic stelae. (A. S. MURRAY, *J.H.S.* XIX, 2, 1899, pp. 198-201; pl.)

Cothon and Censer. — The low, round, sixth-century vessel, with deeply inward and downward curving rim, styled "cothon" (a Laconian soldier's

drinking cup) by Panofka and Conze, is rather an incense-burner. Several other forms of incense-burners existed. One of these, of metal, in which the iron bottom was in one piece with the support and sometimes had a projecting horizontal rim on which rested the upper part of bronze, is imitated in marble votive vessels and in the Eleusinian Kerchnoi. — (E. PERNICE, *Jb. Arch. I.* XIV. 1899, 2, pp. 60-72; 20 cuts.)

Vases with Perforated Bottom. — In *R. Arch.* XXXIV, 1899, pp. 323-328 (4 cuts), Clermont-Ganneau discusses the interpretation of a Boeotian vase published *ibid.* pp. 7 ff. by Pottier. The vase is called an "*éponge américaine*," i.e. a vessel with perforated bottom, for use in taking a shower bath. In *R. Arch.* XXXV, 1899, p. 341, S. Reinach publishes a sketch of a similar vase in St. Petersburg. This specimen was found in a tumulus in the province of Kouban, in 1898. It is adorned with a representation of three nude youths. (Cf. *Arch. Anz.* 1899, p. 57.) In *Athen. Mitth.* XXIV, 1899, pp. 339-344 (4 figs.), R. Zahn, 'Zur Midasvase aus Eleusis,' adds a specimen from Tauagra. To the same class belongs the Midas vase from Eleusis. (*Athen. Mitth.* XXII, 1897, p. 387, pl. 13.) These vases have a sieve in the bottom, while the only opening above is a small hole in the hollow handle. When the vase had been filled by plunging it into a liquid, the hole in the handle was closed by the finger, and the contents remained in the vase until air was admitted. Pottier and Clermont-Ganneau thought they might be for use in the bath, or as watering pots, but Zahn compares Heron of Alexandria I, 7, and decides that they were for dipping out wine from the crater. A bronze instrument, closely resembling the description of Heron, is in the National Museum at Athens. (DE RIDDER, *Bronzes de la Soc. Arch.* No. 114.) These utensils combine the ladle and sieve. Two sieves were used by the Greeks; a large one laid over the mouth of the crater, and a small one through which the wine was poured into the cup.

Representations of Helios and of Selene. — A black-figured lecythus from Eretria, now in Athens, representing the rarely found encounter of Heracles with the rising sun, is noteworthy for delicacy in treatment of subject and in technique. Red and white paint are used upon the black, and a thin wash veils the objects in the otherwise black sea. The chariot of the sun shows the fifth century decorative motive in which the winged horses are turned toward the centre in profile — a design used also for Seléné. On a "fine" red-figured bell-crater from Boeotia, also in Athens, Selene, in profile, is driving her car and escorted by Hermes as the god of dreams. For the conception of Selene in a chariot in preference to Selene on horseback, in the fifth century, to which the vase belongs, we may compare the Parthenon pediment, and for the Hermes, the frequent association of Hypnos with Selene, and the appearance of the latter with Hermes Psychopompus on later sarcophagi. (L. SAVIGNONI, *J.H.S.* XIX, 2, 1899, pp. 265-272; 2 pls.; 3 cuts.)

A New Καλός Vase. — A new red-figured lecythus in the British Museum has a scene in the style of Brygos, a young woman hurrying out of a door which she leaves open behind her, and stretching out her hands eagerly toward some person or object not shown in the picture. The name Ἀλκμέων seems to issue from her lips, and the word καλός is below. Though this name is known in only one other καλός inscription, various names from the famous Alcmaeonid family, such as Megacles and Hippocrates, occur com-

monly. The woman's figure, evidently copied from pictures of Eos in pursuit of Cephalus, suggests her pursuit of Cleitus and the connection of the latter with the legendary Alcmaeon (*Od.* XV, 248). We may have here a mythical subject adapted to real life, and another of the rare instances of a connection between subject and *καλός* name. (ISABEL A. DICKSON, *J.H.S.* XIX, 2, 1899, pp. 202-204; cut.)

The Boreadae Racing.—Miss C. A. Hutton, 'Peinture de Vase représentant les Boréades,' *B.C.H.* XXIII, 1899, pp. 157-164 (3 figs.), publishes a Nolan amphora belonging to Mrs. Hall of London. The vase seems to belong to the group bearing the *καλός* names Charmides and Timoxenus. (Cf. *J.H.S.* IV, p. 96.) The front shows a seated *βραβεύς*, before whom runs a nude winged figure. On the ground is a *σκαπάνη*. The reverse shows a similar nude figure. The scene is explained as the Boreadae, Zetes and Calais, as contestants at the funeral games of Pelias or Thoas. The winner has just passed the judge, and looks back at his still running brother. The *σκαπάνη* was part of the developing apparatus of every gymnasium, and is shown also in a vase in the British Museum (cf. *Schol. Theocr.* IV. 10).

The Birth of Aphrodite.—An Attic hydria of the fifth century B.C. in the municipal gallery at Genoa is described by E. Petersen in *Röm. Myth.* 1899, pp. 154-162 (pl.). It represents the birth of Aphrodite. The artistic development of this subject is marked chronologically by the Ludovisi relief, the basis of the Zeus statue at Olympia, the Genoa vase, and the silver medallion of Galaxidi. The Genoa vase is nearest to the work of Phidias, both representations including the figures of Eros and Peitho. The development shows itself in the constantly increasing animation of the central figure.

In the same article Petersen discusses Panaenus' paintings surrounding the Zeus throne at Olympia (Paus. V, 11, 4), arguing that Pausanias mentions them in order, and that the arrangement formerly generally accepted is substantially correct.

Vases and the Stage.—The influence of the stage on vase painting is seen in an Andromeda bound to a chair, at Bari, Andromeda bound to two trees made from the columns of the proscenium, in an Orestes at Delphi and a *Hercules Furens* with columns for a background, and in other instances. (R. ENGELMANN, May meeting Berl. Arch. Gesellsch. *Arch. Anz.* 1899, 3, p. 132.)

INSCRIPTIONS

Notes on Greek Inscriptions.—In *Berichte d. Sächs. Ges.* LI, 1899, iii, pp. 141 ff., R. Meister discusses four Greek inscriptions: (1) The inscription relating to the letting of meadows in Thespieae, published by Colin, *B.C.H.* XXI, pp. 553-568. (2) The temple-law from the temple of Despoina at Lycosura, published by Leonardos. 'Εφ. 'Αρχ. 1898, pp. 249-272, pl. xv. (3) The sacrificial inscription from the Epidaurian temple of Asclepius, published by Kavvadias, 'Εφ. 'Αρχ. 1899, pp. 1 ff., pl. i. (4) The colonial law of Naupactus, *Berichte d. Sächs. Ges.* November 14, 1895, Dittenberger, *C.I.G.S.* III, No. 334, and Danielsson, *Eranos* III, 1898, pp. 49-80. The full text of the first three is given. The notes relate in part to the interpretation of the meaning, in part to the dialects. They are in great measure directed against special points in the previous discussions.

Archaic Votive Inscriptions from the Acropolis.—The first number of the first volume of the *Catalogue of the Inscriptions in the Epigraphical Museum at Athens*, published (in Greek) by the Archaeological Society at Athens, contains the archaic votive inscriptions from the Acropolis. The inscriptions published number 398. The text is accompanied by a description of each stone and references to the previous publications. A table gives references from the *C.I.A.* to the new publication. A plate of the characters used in the inscriptions is added. The publication is in the main the work of the late H. G. Lolling, whose name appears on the title-page, but its final preparation is due to P. Wolters, who adds an introduction to the preface written by Lolling.

Poems of Simonides.—In *Jh. Oesterr. Arch. I.* II, 1899, pp. 221–244 (3 figs.), A. Wilhelm discusses three inscriptions. (1) *C.I.A.* II, 1677, consists of fragments of the epigram given under the name of Simonides, *Anth. Pal.* VII, 254. If this really refers to those who fell at Tanagra, the date excludes the authorship of Simonides. (2) The first distich of *Anth. Pal.* VI, 144, is found on a herm from Salamis, now in the museum at Athens. The second distich is a later addition, and there is no certainty that the distich of the herm inscription is really by Simonides. (3) The inscription *C.I.G.* 1051, of the fourth or fifth century after Christ, has been rediscovered at Megara. It is the only inscription with the name of Simonides. Certainly not more than the first distich is by Simonides.

The Greek Figure-poems.—The earlier of the Greek *carmina figurata*, those from Hellenistic times, were probably actually inscribed on dedicated objects, which prescribed their shapes. The question how far other dedicatory inscriptions were adapted to the objects, requires close study of the monuments, especially epigraphic. (U. v. WILAMOWITZ-MOELLENDORFF, *Jb. Arch. I.* XIV, 1899, 2, pp. 51–59; 4 cuts.)

Athens and Samos from 405 to 403 B.C.—In the *Revue des Études Anciennes*, 1899, pp. 181–207, P. Foucart gives text and translation of the three decrees in honor of the Samians, published *C.I.A.* IV, p. 1, II, *Add.* p. 393, and elsewhere. An exhaustive commentary follows. The first decree is later than the battle of Aegospotami, but earlier than the blockade of Athens. The formula γνώμη Κλεισόφου καὶ συνπρυτανέων may indicate that the Athenians, disgusted with the effect of the free initiative of individual orators in moving decrees, had substituted that of a board of prytanes. This decree not only bestows upon the Samians all customary honors, but makes them citizens of Athens, giving some details of their enrolment and of the relations of Athens and Samos in various contingencies of war and peace. The second and third decrees were passed after the fall of Samos. These are in honor of the Samians, by which the democratic Samians, then in exile, are meant. The second decree confirms the advantages previously voted to the Samians, authorizes them to send envoys to Sparta, nominates Athenian envoys to support their demands, praises the people of Notium and Ephesus for kindness to the Samians, presents Samian deputies to the assembly, and invites them to dinner in the prytaneum. The third decree, in form an amendment to the second, repeats the confirmation of the advantages previously voted to the Samians and the invitation to dinner, ἐπὶ δείπνον, not ἐπὶ ξένια, to emphasize the citizenship of the Samians. In spite of the humbled condition of Athens, she still dares to show

her gratitude to those who had been faithful to her. Some details of reading and interpretation are discussed.

The Salaminian Decree. — A. Wilhelm's publication of the Salaminian decree (*Athen. Mitth.* XXIII, 1898, pp. 466 ff.) has led W. Judeich to a renewed study of the whole document. He restores it as follows:

ἔδοχσεν τοῖ δέμοι [τὸν ἔσα]λα[μῖνι κατοικῶντα
οἰκέν ἐᾷΣαλαμῖνι [καὶ πο]λέν[παρὰ δὲ Ἀθηναίω-
σι τε[λ]ῆν καὶ στρατ[εύεσθ]αι : τ[ὸν] ἑαντῷ κλῆρο-
ἐ μι[σθ]ῶν. ἐὰμὲ οἰκ[εῖ ἐκεί] ἡο [κάτοικος τὸκλῆρο-
5 ν δὲ [μ]ισθοῖ, ἀποτί[γεν] τὸμισθόμενόν τε καὶ τὸμ-
ισθῶντα ἑκάτε[ρον] τὸ τετραπλάσιον τῷ μισθῷ
ἐς δ[ε] μόνισι[ον], ἐσπράτεν δὲ τὸν ἐκεί ᾗ-
ρχο[ν]τα· ἐὰν [ἀμελεῖ α]ῦ[τὸν] ὀφέλιν : τ-
ὰ δὲ [ἡ]όπλα π[αρέχου]σθαι [ἢ καταθῆναι : τ-
ριά[κ]οντα : δρ[αχμᾶς] ἡδ[ὲ] ἂν θέλει, ἀπὸ τότο-
ν δὲ [τ]ὸν ἄρχο[ντα] τὰ ἡόπλα αὐτοῖ παρεχ-
εν : [ἐπ]ὶ τῆς β[ολῆς] τῆς ἐπὶ . . .

This restoration is justified in detail. The decree regulates the relations between the subject population of Salamis and the Athenians, and cannot therefore be separated in date from the final occupation of the island about 570 B.C. The decree is therefore to be dated about 560 B.C. Wilhelm's caution as to dating early Attic inscriptions on palaeographical grounds is fully justified. The decree belongs with the Pythion dedication, but is certainly older. The neatness and care in execution are not against an early date, especially as the inscription, with its alternate lines of blue and red letters, must have been regarded as akin to a work of art. (*Athen. Mitth.* XXIV, 1899, pp. 321-338.)

Εὔστον, Swine. — In *Athen. Mitth.* XXIV, 1899, pp. 267-274, L. Ziehen discusses the word "Εὔστον," already known in the *ἱερὸς νόμος* of Miletus. (DITTENBERGER, *Sylloge*¹, No. 376.) A fragment (Ἐφ. Ἀρχ. 1857, No. 2667) belongs with *C.I.A.* II, 631, and enables line 13 to be read ἂ παντ]ὸς εὔστο τ[ελέο] : ††† : A discussion of the Milesian and Attic decrees shows that the word is connected with εὔειν, "to singe." It is probably a collective name for the different varieties of the swine, as χοῖρος, κάπρος, σῦς, σιάλος. The inscription was probably found, as Pittakis says, in some country deme, and removed to the Acropolis where the first two fragments were seen by Ross.

Sacred Law of the Eleusinia. — In *Athen. Mitth.* XXIV, 1899, pp. 241-266 (2 cuts), H. von Prott publishes a corrected version of *C.I.A.* I, 5, to which he has been able to add a third small but important fragment. As restored, the text reads as follows:

Ἔδοχσεν [: τῇ βολεῖ] : καὶ [τ]οῖ δέμοι : ἡό[τ]ε Παραιβάτης ἐγραμμάτενε
προτέ]λεια : θ[ύ]εν : τὸς ἱεροποιὸς : Ἐλευσινίων : καὶ [: . . . : ἐ]ν
τοῖ Ἐλ]ευσιν[ίοι] : Γ[ε]ν : Ἡερμῇ Ἐναγονίοι : Χάρισιν : αἶγα [: Ἡιποθόοντι :
κρι ?] ὄν
Ποσειδ]όνι : [κριὸν] : Ἀρτέμιδι αἶγα : Τελεσιδρόμοι : Τρι[πο]λόμοι : οἶν ?
Πλούτο]νι : Δ[ολί?]χοι : θεῶν : τρίττοαν : βόαρχον : ἐν τῇ ἐορ[τῇ]

These restorations, as well as the shape and use of the stone on which the inscription is found and the significance of the inscription, are discussed in

detail. The gods mentioned are closely parallel to those honored in the Thesmophoria at Athens. The mysterious trias, Θεός, Θεά, and Eubuleus, is also discussed. Θεός and Θεά are Pluto and Cora, so far as they are identified with Hades and Persephone, the dreadful powers of the lower world; the cult, however, has never obliterated the essential difference in the original religious conception. The vague personality of Daeira is also brought into connection with Θεά, as the original consort of the god of the lower world, who was superseded by the introduction of the story of the rape of Cora. In conclusion is treated in detail the conflict of gods and cults of which the result is the Demeter religion of Eleusis.

A Letter of the Empress Plotina.—In *Jh. Oesterr. Arch.* I. II, 1899, pp. 270–275, A. Wilhelm discusses the inscription *C.I.A.* III, no. 49. He gives a photographic facsimile, complete readings, and discussion of minor points. A Latin letter of Plotina to Hadrian is followed by his reply in Latin, after which is a Greek letter from Plotina to “all her friends.” The entire inscription has to do with the succession of the head of the Epicurean school, and allows the election of either a Greek or a Roman.

Archaic Dedication at Delphi.—The archaic inscription, part of which was published by Lolling, *Sitzb. Berl. Akad.* 1888, p. 581, and Bannack, *Philologus*, 1889, p. 385, is published with the addition of another fragment, by Paul Perdrizet, *Revue des Études Anciennes*, 1899, pp. 208–210. He reads the whole: Θεγένης Πυθοκλέος[ος ἀνέ]θεκε τὸπέλλ[ον] Ποτε(ι)-δα[άτας.] | Δόμῳ ἐποί[ε(ι)]. This is the first archaic inscription of Potidaea.

The Delphic Aristotle-Decree.—In *Berl. Phil. W.* September 9, 1899, Stanislaus Witkowski proposes to read in the decree concerning Aristotle's list of Pythian victors (cf. *Am. J. Arch.* 1899, p. 307), [σν]νέταξαν? πίνακ[α τ]ῶν ἀμ[φότερα νεν]ικηκότων τ[ὰ Πύθια]. The list then included the musical and gymnastic victors at the greater and lesser Pythian games. It also gave the names of the agonothetae. Aristotle wrote a connected history of the Pythian games (PLUTARCH, *Solon*, 11). This, combined with the list, was known to Plutarch as Πυθιονικῶν ἀναγραφαί.

The Younger Craterus.—In *B. Soc. Ant. Fr.* 1898, pp. 302–305, Amédée Hauvette discusses the inscription from Delphi, *B.C.H.* XXI, 1898, p. 598, and concludes that the Craterus who dedicated the sculpture and inscription was the son of Craterus, the general of Alexander, and Phila, the daughter of Antipater. As the marriage of Craterus and Phila took place after the death of Alexander (*Diod. Sic.* XVIII, 18, 6), the younger Craterus was a child at the time of his father's death. Phlegon of Tralles (*περὶ θαυμασίων*, 32) mentions a Craterus, brother of Antigonus Gonatas. Phila was the mother of Antigonus by her later husband Demetrius. The younger Craterus is probably identical with the author of a collection of decrees, *ψηφισμάτων συναγωγή*.

Ἐρεθούσιος = Ἀρεθούσιος.—In the *Revue des Études Anciennes*, 1899, pp. 210–211, Paul Perdrizet thinks that the form Ἐρεθούσιος in the inscription from Delphi, published *B.C.H.* 1897, p. 107, and the form Ἐρριδάσιος in the inscription from Olynthus last published by Hoffmann, *Griech. Dialekte*, III, p. 9, belong to the dialect of Chalcidice, showing the Ionic tendency to replace *a* by *e* in the neighborhood of liquids.

Delphic Decree.—In *B.C.H.* XXIII, 1899, p. 96, Th. Homolle publishes ‘Un Décret de Delphes pour le Roi Paerisadès.’ The stone contains a frag-

ment of the preamble of a decree conferring honors on King Paerisades and Queen Canasarya. The inscription is probably of the middle of the second century B.C. or somewhat earlier. Cf. Latichev, *Inscr. Pont. Eur.* II, pp. xxvii-xxxiii, and no. 19; *C.I.G.* 2855, and Haussoullier, *R. d. Philol.* XXII-XXIII.

Decree of the Roman Senate in 112 B.C.—In *B.C.H.* XXIII, 1899, pp. 1-55 (4 cuts), G. Colin publishes an inscription of Delphi dealing with a quarrel between the Dionysiac artists of the Isthmus and Nemea and those of Athens. The former body had apparently suffered severely by the Roman conquest in 146 B.C., while the Athenian association had prospered so greatly that both parties found an alliance desirable. The agreement had been ratified by the praetor of Macedonia, and a *senatus consultum* had fixed the places of meeting for this union at Thebes and Argos. The Athenians seem to have profited most by the alliance, and dissensions broke out, not only between the Isthmian association and the Athenians, but also between the Peloponnesians, joined by the Thebans, and the officers of the old association. At a special meeting, seemingly at Sicyon, the Athenians were excluded, and the money they had furnished confiscated. The Athenians appealed to the Roman senate, and the decision was in their favor, especially on the points where violation of the decrees of the senate was charged. The document is somewhat fragmentary. Another stone, badly damaged, contained the original agreement before the praetor of Macedon, Sisenna, probably in 139-138 or 135-134 B.C. Colin discusses the arrangement of the slabs in the treasury of the Athenians, and also gives a full commentary on the inscription, and its bearing on the history of the *τεχνῖται*.

Inscriptions of Acraephiae.—In *B.C.H.* XXIII, 1899, pp. 90-96, P. Perdrizet continues 'Inscriptions d'Acraephiae,' publishing four decrees of proxeny, probably of the early part of the second century B.C. Two are proposed, not by an orator, but by the polemarchs and syndics, the latter a body hitherto known in the Boeotian confederacy only from an inscription of Orchomenus, where they are also joined with the polemarchs and are four in number.

The Edict of Diocletian.—In 'Εφ. 'Αρχ. 1899, pp. 149-176, B. Staes publishes and discusses two inscriptions found at Rovalona, near the ancient Aigeira, in Achaia, containing fragments of the edict of Diocletian fixing maximum prices. Each slab has two columns. Those of the first slab containing seventy-one and seventy-four lines, those of the second twenty-nine and thirty. The first slab begins with the beginning of the edict, after the introduction, and continues with hardly a break to the tenth line of the sixth section. Heretofore most of this part of the edict has been known only in Latin. The second slab contains the last three lines of section seven and section eight to line 38. This slab gives nothing new, except verbal variations. A brief account of previous publications of the edict is given, followed by a detailed commentary on the text.

Archaic Arcadian Dedication.—In the *Revue des Études Anciennes*, I, 1899, p. 281, P. Perdrizet publishes a bronze handle from an oenochoe. It is inscribed *μερὰ Ἀρτέμ.* Epsilon has the form of a simple horizontal line, a form derived from the running hand. This bronze was said by the owner, an Athenian dealer, to have been found in the Peloponnese. This

form of epsilon occurs also on tickets to the theatre at Mantinea. These belong to the fifth or fourth century B.C., to which this bronze must be ascribed. The form Ἀρτέμι also points to Arcadia.

Arcadian History.—In *Hermes*, XXXIV, 1899, pp. 520–552, is an article by B. Niese, entitled ‘Beiträge zur Geschichte Arkadiens.’ The third and fourth sections of the article discuss the decree of the Arcadian League in honor of Phylarchus (Dittenberger, *Sylloge*, I², no. 106), and the decree of an Arcadian city in honor of Magnesia on the Maeander (Dittenberger, *Sylloge*, I², no. 258). The first is assigned to the period 255–245 B.C.

Inscriptions from Delos.—In *B.C.H.* XXIII, 1899, pp. 56–85, ‘Fouilles du Port de Délos,’ Pierre Jouguet publishes a number of the inscriptions found in the excavations of the port and docks. The first nine belong to dedications of the Ἐρμαιῶνται, who appear to have been in part freedmen, in part freemen. Six dedications belong to a class represented in Delos hitherto by but one inscription. They were set up by the κομπεταλιασταί, i.e. the *magistri* of a *collegium* of freedmen and slaves formed to celebrate the Roman festival of the *Lares cerupitales*. These show the growth of Roman influence, for the three oldest are dated by the archons of Athens or the epimeletae of the island, while after 94 B.C. the Roman consuls are placed first, followed by the epimeletae. A new corporation is represented by the χρυσοπῶλαι, who may have been like the ἀργυροκόποι of Ephesus, mentioned in the Acts of the Apostles. Other corporations are the *olearii* and the *τραπεζῖται*. A freedman and four slaves dedicate a statue to Zeus Eleutherius. In all twenty-three dedicatory inscriptions are published. The article concludes with a short sketch of Delos in the middle of the first century B.C. as it must have appeared to a traveller from Athens.

As a supplement to this article (*l.c.* pp. 85–89), G. Colin, ‘La Dodécade délienne,’ publishes three inscriptions from a single stone, relating to Δωδεκηίδες, celebrated under the direction of the priest of the Delian Apollo. The word indicates a sacrifice of twelve victims. The inscriptions of Delphi furnish a number of examples. About the beginning of the first century after Christ, it seems to have become the name of the θεωρία of the Athenians to Delphi, and doubtless also of the corresponding mission to Delos. These documents, though they cannot be dated exactly, are certainly of the time of Hadrian.

Sostratus of Cnidus.—Sostratus, the builder of the Pharos at Alexandria, is mentioned by Lucian (*Hipp.* 2, *Erotes*, 11), Pliny (*N. H.* xxxvi, 18), Eusebius (*Chron.* p. 118, ed. Schoene), Strabo (xvii, 791), and Suidas, *s.v.* Φάρος. His date has been debated, but it can be fixed under Philadelphus. The epigram of the Didot papyrus (*Anthol.* ed. Cougny, III, p. 301, 306), three Delian inscriptions (*B.C.H.* III, 1879, p. 369, *B.C.H.* VII, 1883, p. 6, and a decree of the Delians, published for the first time in the article under review), and an inscription from Delphi (*B.C.H.* XX, 1896, p. 584) fix the date in the earlier part of the third century, about 290–260. Sostratus was evidently a person of varied and great gifts, not merely an architect, but also a man of business, who received honors from Delians and Delphians, as well as from the kings of Egypt. (PAUL PERDRIZET, *R. Études Anciennes*, I, 1899, pp. 261–272.)

The Parian “Hetaerae-inscription.”—In *Athen. Mitth.* XXIV, 1899, pp. 345–347, A. Wilhelm publishes ‘Nachträge zu der sog. Hetäreninschrift

aus Paros.' (Cf. *Athen. Mitth.* XXIII, 1898, pp. 409 ff. 9.) Examination of the stone shows that *Σοστράτου ἱερῆς* is the correct reading, confirming Wilhelm's explanation. The discovery by Rubensohn of the sanctuary of Eileithyia makes a connection of the inscription with this goddess more probable, though the reading of the first line is still uncertain. Additional references for proper names in the inscription, and notes on the inscription from Tanagra, published by Th. Reinach in *R. Ét. Gr.* 1899, pp. 53 ff., conclude the article.

COINS

The Duoviri of Corinth. — The work of the American school at Corinth renders anything connected with that ancient city of especial interest at the present time. The Roman colony of Corinth was established by Julius Caesar, and the colonial officials, *duoviri*, enjoyed the privilege of coining money until the death of Galba in 69. From a large number of coins that have been attributed to Corinth, Mr. Earle Fox sifts twenty-three authentic series that bear in Latin the names of *duoviri*, as follows:

Julius Caesar: (L.) Certus Aeficius, C. Iulius; *P. Tadius Chilo, C. Iulius Nicephorus; *— Inst....., L. Cas..... M. Antonius: P. Aebutius, C. Pinnius; *Q. Caecilius Niger, C. Heius Pam(philus); *....?, M. Ant(onius) Orest(es). *Augustus*: C. Servilius C. f. Primus, M. Ant(onius) Hipparchus; M. Novius Bassus, M. Ant(onius) Hipparchus; P. Aebutius Sp. f., C. Iulius Hera(clius); *P. Aebutius Sp. f., C. Heius Pamphilus; C. Heius Pol(lio), C. Heius Pam(philus); C. Heius Pollio, C. Mussidius Priscus; L. Arrius Peregrinus, L. Furius Labeo. *With head of Drusus*: P. Caninius Agrippa, L. Castricius Regulus. *Caligula*(?): A. Vatronius Labeo, L. Rutilius Plancus; P. Vipsanius (or Vipsanus) Agrippa, M. Bellius Proculus. *Claudius*: — Octavius, Licinus; L. Paconius Flam....., Cn. Publi(cius) Regulus. *Nero*: Ti. Claudius Anaxilaus, P. Ventidius Fronto; M. Ac.... Candidus, Q. Ful(vius) Flaccus; Ti. Claudius Optatus, C. Iulius Polyaenus; L. Rut(ilius) Piso, P. Memius (*sic*) Cleander. *Galba*(?): L. Can(inius) Agrippa (without colleague).

The names starred are dated by inference only. After Galba, no names of magistrates appear on Corinthian coins. — (*J. Int. Arch. Num.* II, pp. 89 ff.)

MISCELLANEOUS

Zagreus, the Horned Serpent. — In *R. Arch.* XXXV, 1899, pp. 210–217, S. Reinach discusses the myths of Zagreus imperfectly recorded by ancient authors. He appears to have been born as a horned serpent, his mother Persephone having taken a similar form, and his father Zeus having become a serpent to pursue her. Pliny's account of the serpent's egg (*N.H.* XXIX, 52), and the worship of serpents, especially a horned serpent, by the Druids, are discussed. The cult of Zagreus is Orphic, and was supposed to have entered Greece from Thrace. The ancients also believed that the Thracians and the Celts had intercourse with each other. At any rate, the Celtic worship of a horned serpent is prehistoric in its origin, and is seen to be not isolated in Europe.

The Stone used in the Decoration of Monuments at Mycenae. — In *R. Arch.* XXXV, 1899, pp. 16–18, L. de Launay gives analyses of several fragments of stone of different colors from the buildings at Mycenae. He finds the stones called by various writers porphyry, basalt, and breccia are

all crystalline limestone, more or less silicious, more or less ferruginous, more or less fine, probably derived from the metamorphic regions which occupy a large part of Greece and the islands of the Archipelago.

Sanctuary of Asclepius at Epidaurus. — The second volume of the library of the Archaeological Society at Athens is entitled: *Τὸ Ἱερὸν τοῦ Ἀσκληπιοῦ ἐν Ἐπιδαύρῳ καὶ ἡ Θεραπεία τῶν Ἀσθενῶν*. (8vo. 303 pp.; 8 phototype pls.; 1 topographical pl.; 9 cuts.) The author is P. Cavvadias. The introduction treats of the god Asclepius, the progress of his worship from Thessaly to Boeotia, to Epidaurus, and to other parts of the Greek world, of the topography of Epidaurus, of the history of the place, and of the excavations. There follows a detailed description of the sanctuary, each building being described and discussed with the greatest care, with due attention to questions of chronology, history, and archaeology. Besides the temple of Asclepius, the following buildings and structures are treated: the Tholos or Thymele, the Theatre, the Stadium, the Hippodrome, the Abaton, the Ancient Temple and the house of the priests, the Temple of Artemis, the Temple of Aphrodite, the Sanctuary of Themis, the Epidoteion, the Anakeion, the Propylaea of the sanctuary and the road from Epidaurus, the Gymnasium with its propylaea, the Temple of Hygieia, the Odeum, the Greek Bath, the Stoa of Cotys (palaestra), the Bath of Asclepius and the Library, a building like a stoa, a Roman Bath, the Temple of Apollo and Asclepius built by Antoninus, a house of Roman times, an inn, wells, cisterns and water conduits, springs and fountains, buildings of the times of the Antonines, buildings of the last times of the sanctuary, the cemetery, and the sanctuary of Apollo Maleatas. The worship of Asclepius and Apollo, as here carried on, is then described in detail, after which the worship of the many other deities honored in the sacred precinct is expounded. Sacred animals (especially the serpent) are enumerated, and the worship of Asclepius as a serpent is discussed. Then the votive offerings, the sacrifices, the hymns and paeans, the sacred festivals and games, and the persons occupied in the cults are passed in review. The management of the sanctuary, its sources of income, the disposal of its funds, the agreements made with architects, workmen, and sculptors receive careful attention. A description of the care of the sick in Greek and Roman times is followed by a discussion of the relation of medical practice to the Asclepieum, and the book closes with a treatise on the decadence and end of the worship of Asclepius. Throughout the book the inscriptions and other monuments found at Epidaurus are naturally the material upon which the descriptions and discussions are based.

Archaic Greek Bronze Vessel from Leontini. — The fifty-ninth "Winckelmannsprogramm" of the Berlin Archaeological Society is entitled *Altgriechisches Bronzebecken aus Leontini* (35 pp.; 2 pls.; 15 figs.). The author is Hermann Winnefeld. The bronze vessel is a large one (diameter 0.538 m., height 0.215 m., diameter of the mouth 0.354 m.). It was found in the ancient necropolis of Leontini in 1883 or 1884 (*Not. Scavi*, 1884, p. 252) with several other objects — gold and silver ornaments, a vase of Corinthian style, etc. All except the gold objects are now in the Berlin antiquarium, where the bronze vessel has been accurately restored. Four ram's-heads of cast, not beaten, bronze are soldered, not riveted, about the opening of the vessel. The vessel itself recalls the similar vessels found at Olympia and

elsewhere. The ram's-heads are to be compared in style and technique with the latest of the griffin's-heads from Olympia. Three of the ram's-heads are nearly identical, the fourth noticeably different, yet all belong to the vessel, and are of the same school and date. The ram's-head of the *simā* from Athens (see *Am. J. Arch.* 1898, pl. viii) and other representations of the same object are discussed. The vessel from Leontini is ascribed to the end of the seventh, or beginning of the sixth century, B.C. Apparently no tripod belonging to it was buried with it. The other objects found in the graves (three in number), from one of which the bronze vessel was taken, are described and illustrated.

Delphica.—The religion of the early inhabitants of Greece, who buried their dead, was a belief in the spirits of the dead as potent for good or evil, closely associated with the earth, and haunting their mound-shaped tombs in the form of snakes, often oracular. All of these features are found occasionally in tragedy and in art, especially vase-painting. The later conception of the spirit as a winged *eidolon*, the conception of a people who burned the dead, is found, together with the snake form, on an archaic prothesis vase. These snake spirits, anthropomorphized, but not always completely, and made female by association with the fertile earth, are the Nymphs, Charites, Semnae, Moerae, *κῆρες*, and especially the Erinyes, originally singular. To this stratum of belief belong Saturn and Gaia, Demeter and Cora, all the chthonic deities, and even the great female divinities, Athena's companion snake still recalling her own original form. The later worship of Zeus and Apollo prevailed only partially even at Delphi, where the omphalos-tomb, the maiden Pythia, and the Python itself,—the original oracular spirit still to be traced as female,—all belong to the earlier epoch. The omphalos found in the course of the recent excavations is a marble copy of the primitive, white-plastered grave-mound of earth, bound with a network of fillets. (J. E. HARRISON, *J.H.S.* XIX, 2, 1899, pp. 205–251; 12 cuts.)

Greek Discus from Sicily.—In *Jh. Oesterr. Arch. I.* 1899, pp. 201–205 (pl. i), Robert v. Schneider publishes a bronze discus from the neighborhood of Terranova, in the territory of the ancient Gela. The discus is about 0.007 m. thick, 0.28 m. in diameter, and weighs 3800 gr. It is, then, one of the largest known specimens. It is of bronze, covered with a fine patina. On one side is the figure of a dolphin sunk in the bronze. This was originally filled with silver, and the dolphin may have symbolized the rapid flight of the discus. Comparison with dolphins on coins, etc., fixes the date of this discus about 500 B.C.

Erotes at the Pyre.—The second part of S. Reinach's 'Notes Archéologiques,' in *R. Arch.* XXXIV, 1899, pp. 335–340, is devoted to the tiara of Saitaphernes. The winged spirits at the funeral pyre of Patroclus, are at once Erotes, with reference to the love of Achilles and Patroclus, and wind spirits or personified winds. The fusion of the two conceptions is explained from the tendencies of Alexandrine art.

The Silenus Terpon.—The first part of S. Reinach's 'Notes Archéologiques' in *R. Arch.* XXXIV, 1899, pp. 335–340, is a collection of all material relating to the representation of the Silenus Terpon.

Heron's Dioptra.—The Dioptra of Heron of Alexandria can be reconstructed in a thoroughly practical shape from his description, although there is a lacuna of several pages in the text. It comprised: a sighting apparatus

on a disk which, though normally horizontal, could be turned and tilted in every direction, even to the vertical; a separate water-level which could perhaps be attached to the same support; and the surveyor's poles. — (H. SCHOENE, *Jb. Arch. I. XIV.* 1899, 3, pp. 91–103; 9 cuts.)

The Scenery of the Greek Stage. — The early plays of Aeschylus required no background, being acted around an altar, tomb, or natural object represented by the platform which served as stage. When, with the *Oresteia* and later plays, a palace or temple was needed, the architectural features were probably painted directly on the wooden front of the scene-building which stood behind the long, narrow stage. The elaborate stone scene-fronts of the third century, of which *Aspendus* is typical, show what was represented in a simpler way on the wooden scene of the earlier time. The familiar use of color, to express details of form in architecture and sculpture, when extended so as to indicate the main feature of the building itself on a flat surface, became the art of perspective, of which the first scene-painter, Aristarchus, was a master. The Greeks always applied the art to architectural designs, never with success to landscape or to natural objects. The architectural background answered for both tragedy and comedy, while various changes of scene and the natural surroundings of a satyr drama were sufficiently indicated to the imagination of the fifth century by a few typical objects placed upon the stage or shown on the revolving *periacti*, which stood at the sides and may have corresponded in their use to the right and left doors. The actual doors of the scene were visible and in use. Marine deities entered on the ordinary level, as coming from the harbor; others descended by the "machine." (P. GARDNER, *J.H.S.* XIX. 2, 1899, pp. 252–264.)

ITALY

SCULPTURE

Roman Historical Reliefs. — A former member of the *École Française de Rome*, Edmund Courbaud, is the author of a treatise on Roman sculpture: *Le bas-relief romain à représentations historiques. Étude archéologique, historique, littéraire.* 8vo, xiv, 402 pp., with 19 plates. Fontemoing, Paris, 1899. This volume forms the eighty-first 'fascicule' of the *Bibliothèque des Écoles Françaises d'Athènes et de Rome*. After having carefully distinguished Graeco-Roman reliefs as essentially decorative from Roman reliefs, as essentially historical, and having explained why the historical relief did not appear until the period of the Empire, the author considers the monuments as belonging (1) to the Augustan or formative period, (2) to the period of perfection, from Claudius to Trajan, (3) to the period of decadence, the days of Hadrian and the Antonines. In this portion of his volume he selects the typical, influential monuments which illustrate the formation, the perfection, and the decadence of the historical relief, without attempting to give a complete catalogue of such monuments. Nearly half the volume is then given to a study of Hellenistic life, in which the realistic and picturesque elements in the literature, painting, and sculpture of this period are emphasized. These two qualities characterized especially the schools of Pergamon and Alexandria, and these two centres had an important share in moulding the character of Roman historical reliefs.

The Political Meaning of Trajan's Arch at Beneventum. — In *Jh.*

Oesterr. Arch. I, 1899, pp. 173-192 (13 cuts), A. v. Domaszewski discusses the Arch at Beneventum. The side toward the city is the chief side. The arch offers three main divisions to the sculptor: the city side, toward Rome as well as toward Beneventum; the country side, facing the road which the emperor had made to connect Italy with the provinces; the side walls of the passage through the arch, through which the citizens of Beneventum passed back and forth. Accordingly, the reliefs of the first side show the relations of the emperor to Rome, those of the second celebrate his benefactions to the provinces, those of the passage walls are intended to keep the memory of his kindness alive in the minds of the Beneventines. This general conception of the significance of the reliefs is established by an elaborate discussion of the scenes and groups represented, with interpretation of individual figures and explanations derived from the history of the time.

Relief in Rome.—In *Röm. Mith.* 1899, pp. 3-7 (1 pl.), W. Amelung discusses the fragmentary relief published by Savignoni in *B. Com. Roma*, 1897, p. 73 f. (cf. Robert in the twenty-first *Hallisches Winckelmannsprogramm*, pp. 4 f.). It was found on the Palatine and is now in the Museo Nazionale. It is a poor copy of an excellent original, probably of the fifth century B.C., representing three female figures,—the one on the right being separated from the two others. A large fragment of the same relief, showing the head and bust of the middle figure, recently found in the Giardino della Pigna of the Vatican, is published here for the first time. The figure on the right is evidently the important one, but the meaning of the relief cannot be determined. The writer agrees with Robert that it is not a reconciliation of Leto and Niobe.

Art in Mithraic Ornaments.—In *R. Arch.* XXXV, 1899, pp. 193-202, Franz Cumont discusses the art exhibited in the monuments pertaining to the cult of Mithras. Few have any artistic merit, but beauty was not what their makers aimed at. The figures are all borrowed from Greek types except that of the lion-headed Cronus, the archetype of which is Oriental. With all its imperfections, the art of these monuments exercised considerable influence, its types being utilized by early Christian artists.

The Funeral Banquet on Roman Tombstones.—At a meeting of the Archaeological Institute (English), November 1, 1899, F. J. Haverfield contributed a paper 'On the Sepulchral Banquet on Roman Tombstones,' in which he traced the origin of the type back to Oriental sources, and followed its course from Assyria to Greece, and thence to Italy and all parts of the Roman world. (*Athen.* November 11, 1899.)

The Ammendola Sarcophagus.—In the centre of the battle scene on the Ammendola Sarcophagus in the Capitoline Museum (*R. Arch.* 1888, pls. xxii, xxiii; HELBIG, *Antiquities*, II, p. 304, No. 422) is an overthrown barbarian. His attitude has been explained as that of suicide, but no wound is visible, and he is really trying to wound the mounted enemy nearest him. The story of the destruction of the Gauls at Delphi (Paus. X, 23, 8) contains no mention of suicide, and suicide in actual battle would be sheer desertion. (A. BLANCHET, *B. M. Soc. Ant. Fr.* 1899, p. 177.)

VASES AND PAINTING

Pre-Hellenic Ware of Peucetia.—In *Röm. Mith.* 1899, pp. 13-80 (4 pls.; 21 figs.), M. Mayer has an exhaustive treatment of the pre-Hellenic vases of

Peucetia, the central district of Apulia. The article includes a partial catalogue of the vases in the Museum of Bari, with a detailed description of each specimen. The favorite element in the decoration is a comb-like design of parallel straight lines, which is thought to be derived from a local cult of Venus; similarly, another ornament, resembling a trident, is referred to a cult of Neptune. The 'swastika' is a common element, as is also a series of semicircles or arcs. The writer places the development of these vases between the years of 550 and 400 B.C. An earlier stage of this art he finds in certain fragments discovered at Putignano, which contain in primitive form nearly all the decorative elements of the Bari vases. The article includes a description of the grotto at Putignano, a discussion of the name of the town, which is compared with that of Πύττα in Crete, and an attempt to prove a connection of this part of Italy with Crete and certain parts of Greece.

Amphorae with Disks on the Handles.—In *B. Paletn. It.* 1899, pp. 42–49 (2 figs.), G. Patroni discusses two vases, hitherto unpublished, with reference to his theory that the amphorae, with disks on the handles, found in Lucania and Apulia are derived from the Greek colonists on the western coast of Italy. (*B. Paletn. It.* 1898, pp. 65 f.) The first vase is a fully developed disk amphora, with high handles, not later than the sixth century B.C., and was found at Sala Consilina, in the province of Salerno. It resembles closely the later Lucanian vases just mentioned. The other vase has come to light in the Museo Campano at Capua, and was found at Santa Maria Capuavetere or in the necropolis of ancient Capua. It resembles, though not closely, the Villanova ossuary, and also a vase found at Tarentum; the latter resemblance is shown to be accidental.

Dioscuri, not Corybantes.—In *Röm. Mith.* 1899, pp. 101–102, E. Petersen argues against the theory of Amelung (*Röm. Mith.* 1898, pp. 97 f.) that the mounted figures on the Ruvo vase (Heydemann 3256) are Corybantes. He explains them as the Dioscuri, admitting that the armed figures on foot and the one with the cymbals may be Corybantes. This is not enough, however, to prove an Orphic element in this class of south-Italian vases.

Artemis and Hippolytus.—In *Röm. Mith.* 1899, pp. 91–100 (2 figs.), E. Petersen discusses the wall painting representing Artemis seated, with three attendant maidens standing, and a young man also standing. There are four copies of this, three described by Helbig, *Wandgemälde*, Nos. 253 f., and the fourth by Sogliano, *Le Pitture murali*, No. 119. After pointing out the resemblance in details between these and the pictures of Admetus and Alcestis (*Arch. Zeit.* 1863, pp. 105 f.), which are possibly due to the same artist, the writer calls attention to a painting recently found at Pompeii (*Not. Scavi*, 1897, pp. 32 f.), representing Artemis and Hippolytus, seated. The love of the goddess for the mortal, and the feeling of awe with which he responds are the motives in this picture,—a conception taken from Euripides, as is that of the Admetus and Alcestis pictures. In the group of four pictures mentioned above, the young man is again Hippolytus; he is relating to Artemis the story of Phaedra's love. The incident is not mentioned by Euripides, but is a most natural conception.

Wooden Tablets; Encaustic Painting.—O. Donner von Richter has an article in *Röm. Mith.* 1899, pp. 119–140 (5 figs.), on the quadrangular wooden tablets which have left their impress on the walls in certain houses

at Pompeii. He argues exhaustively against the theory that they were paintings, and suggests that possibly they were the back walls of cupboards, or served as blackboards for written notices, or were a background for nails or hooks. The second part of this paper is devoted to a discussion of encaustic painting, based especially on *Pliny N. H.* xxxv, 122 and 149. Two points are brought out: the fact that the painting process was entirely finished before heat was applied; and that no preliminary coat of wax was necessary when colors were applied to a wooden surface.

INSCRIPTIONS

Review of Epigraphic Publications relating to Roman Antiquity. —

The *R. Arch.* xxxv, 1899, pp. 171–192, contains R. Cagnat's 'Revue des publications épigraphiques relatives à l'antiquité romaine.' Here seventy-four inscriptions from various periodicals are republished. Brief notes on books relating to Roman epigraphy are appended. A plate gives a photograph of the *tabula devotionis* from Carthage, published by BABELON, CAGNAT, and SALADIN, *Musée Lavigerie de Saint-Louis de Carthage*, 1899, vol. II, pls. 21, 22, pp. 87 ff. The 'revue' is continued, *ibid.* pp. 484–516, by Cagnat and Besnier. One hundred and thirty inscriptions are republished. Fac-similes are given of the inscription of Maximus from Villa Franca de los Barros (see above, p. 264), of an inscription from Böhming, and of the archaic cippus from the Roman Forum. An index fills pp. 517–524.

The Archaic Inscription from the Forum. — See above, p. 257. In *Atene e Roma*, 1899, Luglio-Agosto, pp. 145–164, D. Comparetti publishes the inscription, — not in fac-simile, — with a commentary. The inscription, he thinks, has to do with the place where it was found, the tribune later called *rostra*. The beginning reads in substance: *Quoi ho[n]ce loqom sciens violasid], sacros esed; sord[eis quoi faxsid]*. The penalty attached to violation of the place follows; then further provisions. The date is not earlier than 509 B.C., but hardly much later than 500. The year 493 B.C. is suggested, the date of the establishment of the tribunes of the people. The inscription has been discussed in numerous articles by Ceci (see above, p. 257, to which must be added numerous controversial articles in the daily paper, *Il Popolo Romano*), Gamurrini, Mariani, Huelsen, Ramorino, Otto (*Archiv f. latein. Lexicographie*), Skutsch (*Literarisches Centralblatt*), Pais (in *Nuova Antologia*), Tropea (*Cronaca della Scoperta e della Discussione intorno la Stele Arcaica del Foro Romano*, Messina, 1899), von Duhn (in *Neue Heidelberger Jahrbücher*) and others.

Oscan Inscriptions at Pompeii. — In *Röm. Mith.* 1899, pp. 105–113 (1 fig.), A. Mau discusses an article by H. Degering, published in *Röm. Mith.* 1898, pp. 124–146 (cf. *Am. J. Arch.* 1899, pp. 143–144), on five Oscan inscriptions at Pompeii. He shows that Degering's objections to Nissen's theory are not sound, and that Degering's own theory is untenable.

COINS

The Types of Annona. — In *B. M. Soc. Ant. Fr.* 1899, pp. 243–246, the types of *Annona* on Roman coins and tesserae are discussed (cf. Rostovtsew in *R. Num.* 1898), and two engraved gems are published (cuts) by A. Blanchet. The gems have figures closely resembling the *Annona* on certain tesserae.

Mint or Jeweller's Workshop?—One of the famous little cupid-frescoes of the *Domus Vettiorum* in Pompeii, representing the *amorini* as metal-workers, at forge, blow-pipe, and anvil, was published by A. Sogliano (*Mon. Antichi*, 1898) as a scene from a jeweller's workshop. But another view has been strongly urged by E. J. Seltman (in *Num. Chron.*), that these are no jewellers, but coiners engaged in the operations of the mint. His reasoning did not convince J. A. Blanchet of the Bibliothèque Nationale, who came to the defence of Sogliano in an article in *Rev. Num.* 1899, pp. xvi f. Now we have still further considerations from Seltman in support of his position (*J. Int. Arch. Num.* 1899, p. 225), which is also sustained by Svoronos (*ibid.* p. 251). Mau (*Pompeii*, translated by Kelsey, p. 329) recognizes the cupids only as jewellers.

Roman Coins found in India.—Last autumn, there was a find of denarii in Pakli, a part of the Hazāra district beyond Manshra, which is sixteen miles north of Abbottābād. The coins got into the hands of Pindi dealers. It is not known just how many coins the hoard contained, but twenty-three have been examined, showing twenty-one distinct types. The earliest is a denarius of Q. Curtius and M. Iunius Silanus, assigned by Babelon to *circa* 114 B.C.; then one each of Cassius Longinus, Cn. Plancius, and Scribonius Libo (*circa* 54 B.C.), and one each of Sex. Pompeius and Caepio Brutus, dating shortly after Caesar's death. The majority (12) belong to the reign of Augustus; then there are two of Tiberius, and finally, with an interval of almost a century, there is a denarius of Hadrian. (*Num. Chron.* 1899, p. 263.)

Romano-Campanian Coinage.—For several years, Dr. Max Bahrfeldt, of Breslau, has been studying the Roman coins of the Republican period. His *Nachträge und Berichtigungen* (1897) brought together a mass of notes in correction and enlargement of Babelon's *Monnaies de la République Romaine*, comprising the coins that bear magistrates' names,—the so-called 'family series.' The field was immense, and the *Nachträge* were a collection of running notes. The smaller series of 'Romano-Campanian' coins of Southern Italy, summarily treated by Babelon, afforded a narrower field of investigation. Following the methods of M. le Baron d'Ailly (*Recherches*, 1864), with the enlarged facilities and wider knowledge of to-day, Dr. Bahrfeldt has gathered much interesting material, and the results are translated by Dr. Serafino Ricci for *R. Ital. Num.* (1899, pp. 387-446; pl. iii), and are to be continued in a future number. Dr. Bahrfeldt produces such an amount of new material as cannot fail to place the study of this series of coins upon a scientific basis.

The Mints of the Age of Constantine.—The investigation of the coinage of Constantine, his co-rulers, and his family has been begun by Jules Maurice. He studies the issues of the various mints, and essays a chronological sequence. In *Num. Chron.* 1899, p. 208, he examines the mint of Antioch between the years 306 and 337, and in *R. Num.* 1899, p. 338, he proceeds to a parallel study of the mint of Rome itself. The rapid succession of *Caesars* and *Augusti* furnishes the first clew to a classification, with the further aid of mint-mark, type, legend, and weight. The field is limited here, and the results will be subject to revision; but the method is as sound as the material will allow, and will lead eventually to a satisfactory classification of these coins. In *B. Soc. Ant. Fr.* 1898, pp. 366-369, 404, 405, Jules

Maurice describes some coins of Constantine in the British Museum and the Imperial Museum at Vienna. He also calls attention to the fact that four coins with the legend on the reverse: SAC · MON · VRB · AVGG · ET · CAESS, associated with 1, IMP · G · MAXIMIANVS · P · F · AVG ·, 2, MAXIMINVS · NOB · CAES · (Cohen 148), 3, CONSTANTINVS NOB CAES (Cohen 476), 4, IMP · C · SEVERVS · P · F · AVG · (Cohen 62) must have been struck before the capture of Rome by Maxentius and after Constantine was made Caesar, *i.e.* between July 25 and October 28, 306 A.D.

Chrysopolis Aquileia.—In *Jh. Oesterr. Arch. I. II*, 1899, Beiblatt, pp. 105 f., E. Maionica publishes (2 figs.) two *piombi* from Aquileia. One has obverse head of the goddess Aquileia with diadem; inscription, CHRYSOPOLIS AQVILEIA; reverse, Victory moving to left. The other has obverse, Aquileia enthroned, wearing a diadem and holding a horn of plenty; inscription, AQUILEIA FELIX; reverse, wreath, and inscription HORR. AQUIL.

Sulpicia Dryantilla.—In *Jh. Oesterr. Arch. I. II*, 1899, pp. 206–210, E. Groag reviews what is known from coins and the inscription from Oenoanda (*Denkschriften d. k. Akad. d. Wiss. Wien, Phil-hist. Classe*, XLV, 1897, pp. 41 ff.) of the empress Sulpicia Dryantilla. She appears to have been the mother of the usurper Regalianus, and to have been made Augusta by him. The coins of Regalianus and Dryantilla are described (24 figs.) and discussed by W. Kubitschek, *Jh. Oesterr. Arch. I.* 1899, pp. 210–221, also Beiblatt, p. 111.

MISCELLANEOUS

A New Book on Pompeii.—Under the title, *Pompeii, its Life and Art*, the Macmillan Company has published in popular form the results of Professor August Mau's long study of the remains of Pompeii. The book (xxii, 509 pp.; 12 pls.; 6 plans; 263 figs.; \$6.00) is translated by Professor F. W. Kelsey from Mau's German manuscript, and is in no sense a new edition of the Overbeck-Mau *Pompeji*, but an entirely new work. An introduction of six chapters treats of the situation of the city, its history before 79 A.D., its burial in the volcanic eruption at that time, its unearthing in modern times, its internal topography, its building materials, construction, and six architectural periods. Then follows a careful description of the Forum and the surrounding buildings, the other public buildings and the defences of the city, the Pompeian house in general, and the most interesting Pompeian houses separately. Among these is, of course, the house of the Vettii, excavated in 1894–95. Roman villas are then described, the Villa of Diomedes and the Villa Rustica at Boscoreale being used as examples. A chapter is devoted to household furniture, one to the bakers and their trade, one to the fullers and tanners, and one to inns and wineshops. The street of tombs before the Herculaneum gate occupies a chapter, and the burial places near the Nola, Stabian, and Nocera gates are described in another. Pompeian art, in its three divisions of architecture, sculpture, and painting, is treated in three chapters. These are followed by three chapters on Pompeian inscriptions and a brief concluding chapter on the significance of the Pompeian culture. The book is furnished with an index, but is without bibliographical or other notes, and almost free from argumentative discussion. Even a new view, as (p. 150) that the small doors near the ends of

the stage of the smaller theatre were for the use of the occupants of the tribunals, is introduced without discussion or note (see p. 150 of this Journal). So, too, the suggestion that the Doryphorus in Naples is really a Hermes (p. 161) and the positive statement (p. 445) that the so-called Narcissus is really a Dionysus have passed into the text with no notes to distinguish them from statements of assured and long-known facts. Thus, in spite of its scientific character, the book is thoroughly popular. The illustrations are, for the most part, reproductions of photographs.

Early Remains near Piperno.—The polygonal walls and other antiquities in the neighborhood of Piperno have recently been studied by G. B. Giovenale and Lucio Mariani, and the results are announced in *Not. Scavi*, March, 1899, pp. 88–101 (15 figs.). Probably in pre-Roman times a part of the slope of Monte Macchione was cut into three terraces, which were surrounded by retaining walls of polygonal construction, large portions of which still exist. There are also remains of buildings of early date. In a circular subterranean structure were found the head of a female statue, the hair dressed in the fashion of Caracalla's time, and several mediaeval vases. Whether the enclosed terraces formed a necropolis or a sacred *temenos* is doubtful.

There are many other ancient remains in the neighborhood. It is probable that the top of Monte Macchione was an acropolis, but no trace survives. On the slope there are indications of roads with polygonal supporting walls, especially one leading from the terraced enclosure to the top. The Roman Privernum was about 2 km. north of the modern Piperno; among the antiquities found there are republican and imperial coins; a fragment of a round marble altar, sculptured and inscribed; a piece of basalt, on which are Egyptian letters and a representation of the goddess Sekhet; an archaic bronze figurine of Apollo; and many fragmentary Roman inscriptions, sepulchral and honorary.

The Necropolis at Genoa.—In *Rend. Acc. Lincei*, VIII, fasc. 3, 4, pp. 151–157, G. Ghirardini discusses the necropolis recently discovered in Genoa, as announced in *Not. Scavi*, 1898, pp. 395–402. The custom of burial survived for a long time among the Ligurians. Cremation appeared first in the eastern part of the country, and these tombs at Genoa are, with the exception of those of Savignone, which are of the same period, the earliest example of the change of custom. These tombs differ from others in Liguria, moreover, in the abundance of Greek products, especially painted vases and bronzes due to an early commerce with Greek colonies in this part of the Mediterranean.

Four Periods at Este.—In 1895–98 a new group of tombs was excavated by Professor Prosdocimi and Alfonso Alfónsi in the northern part of the necropolis at Este. The result was important, confirming in the most positive way the classification previously made by Professor Prosdocimi. The four periods are indicated clearly by tombs at different depths, as well as by the funeral equipment, which became constantly more sumptuous and more artistic, until the latest period, when a decline had begun. The tombs are of two types, the earlier and lower ones being generally mere holes, containing the ossuary, the later ones nearer the surface being commonly boxes of limestone. In the first period the ossuary is either of the Villanova form or is a terra-cotta situla, which is only an imitation of the bronze situla. In

the second period the two types continue, but there are more accessory vases; these have a decoration of incised lines or raised bosses. Painted vases appear in the transition from the second to the third period; also bronze situlae, evidently a local product of artistic and commercial importance. In the third period there is a decided departure from the situla type, and we find gracefully curved vases with colored decoration. In the fourth period the ossuary is large, poorly made, and colored. The four periods are by no means distinct, but overlap one another. There is no break, no sudden change; the development is gradual and continuous from the end of the bronze age to the coming of the Gauls, when degeneration begins. (G. GHIRARDINI, *Rend. Acc. Lincei*, VIII, fasc. 3, 4, pp. 102-113.)

The "Gladiators' Barracks" at Pompeii.—At a meeting of the German Institute in Rome, January 13, 1899, E. Petersen advanced the theory that the so-called gladiators' barracks at Pompeii were originally not a promenade for the large theatre, but a gymnasium or palaestra. He compared this especially with the palaestra at Olympia. (*Röm. Myth.* 1899, pp. 102-103.)

Objects found at Pacengo.—In *B. Paletn. It.* 1899, Nos. 1-3, pp. 32-37, Arrigo Balladoro gives a list of objects (arrowheads, hatchets, etc.) found in recent investigations at Pacengo on Lago di Garda. No new light has been thrown on the prehistoric inhabitants of this site, but it is proved that the settlement was a large one. For a statement of the excavations of 1892-95, see *Not. Scavi*, 1895, pp. 453 f. and *B. Paletn. It.* 1896, p. 247.

Rome founded in the Twelfth Century B.C.—O. Montelius, in a communication printed in *Rend. Acc. Lincei*, VIII, 1899, p. 196, says that Rome was founded at least as early as the twelfth century B.C. He bases the statement apparently upon the date of tombs found in the city.

The Necropolis of Remedello Sotto.—In *B. Paletn. It.* 1899, Nos. 1-3, pp. 1-27 (7 figs.), G. A. Colini continues his discussion of the necropolis of Remedello Sotto, near Brescia, and the eneolithic period in Italy. The present paper is devoted to a minute description of arms and utensils of flint, formed by a rough chipping process, found in tombs of the eneolithic period in all parts of Italy. Many of these are survivals of the palaeolithic age, preserved on account of their simplicity and great variety of uses.

Alba Longa.—Mr. Thomas Ashby, Jr., has published a paper on the probable site of Alba Longa in Vol. XXVII of the *Journal of Philology*, pp. 37-50. Mr. Ashby's careful study of the ground leads him to the conclusion, which I most decidedly endorse, that Alba Longa, so called, "ab situ porrectae in dorso urbis" (Livy, I, 3, § 3), occupied the ridge of Castel Gandolfo between the present Pope's summer palace and the convent of the 'Riformati.' (RODOLFO LANCIANI, *Athen.* September 30, 1899.)

Nero's Great Ship Canal.—In *Athen.* August 12, 1899, Alfred Marks discusses the passages in Suetonius (*Nero*, 31) and Tacitus (*Ann.* XV, 42) relating to Nero's project of connecting Portus Julius by a ship canal with the Tiber. He describes the tunnel known as the Grotta di Pace. This tunnel, about two-thirds of a mile long, 16 feet wide, and, in parts, 30 feet high, starts on the northwestern side of Lake Avernus, pierces the crater wall, and comes out just where we should expect to find the mouth of a tunnel designed to carry the waters of a canal from Avernus to the shore. This is what remains of Nero's great undertaking. The Grotto della

Sibilla, on the southern shore of Avernus, is the one mentioned by Strabo as the work of Cocceius, employed by Agrippa. This tunnel is between 200 m. and 300 m. long, and was originally 10 feet high and 17 feet wide.

Basilicas of Matidia and Marciana.—In *Röm. Mith.* 1899, pp. 141–153 (plan; 2 figs.), Ch. Huelsen attacks the theory of Lanciani (*B. Com. Roma*, 1883, pp. 5–16) that near the Piazza Capranica in Rome, instead of two basilicas, one of Matidia, the other of Marciana, there was a temple dedicated to both women, but called *Templum Matidiae*. Lanciani is shown to be inaccurate in his description of the existing remains near the *Vicolo della Spada d'Orlando*, and his arguments are refuted in detail. The facts are as follows: Between the Pantheon, the north end of the *Saepta*, and the column of M. Aurelius,—probably north of the modern *Via dei Pastini*,—was a group of three buildings—two basilicae, one of Matidia, the other of Marciana, and a *Heroum* of Hadrian. The orientation was like that of the Pantheon. To which building the existing remains belonged is doubtful.

The Legend of the Capitol.—In *B. M. Soc. Ant. Fr.* 1899, pp. 246–247, E. Babelon describes a gem presented by Pauvert de la Chapelle to the Cabinet des Médailles. It represents two augurs surrounded by the statues of Mars, Juventus, and Terminus, in reference to the story that these three refused to leave their ancient seats and make room for the temple of Jupiter Capitolinus. Juventus is here—as occasionally elsewhere—represented as a young man.

SPAIN

Pre-Roman Agricultural Colonies of the Valley of the Baetis.—In *R. Arch.* XXXV, 1899, pp. 126–159 (35 figs.), G. Bonsor gives a general description of the coast from Almeria to Cadiz, of the valley of the Baetis, and the neighboring hills. Most of the coast cities of Baetica were of Phoenician origin. Excavations of tumuli and tombs at eleven places are to be described. In this article the necropolis of Acebuchal is the subject of a detailed account. Some bodies are buried in a crouching posture, some are burnt, and some are buried in a cave of fixed orientation. Here are many tumuli, usually with rectangular tombs, but under one were three circular *silos* connected by short passages. Objects found include personal ornaments, *e.g.* a silver fibula, a buckle of silver and one of copper, gold beads, an earring, a ring, etc., fragments of bone and ivory with animals and patterns engraved upon them, apparently of Oriental origin, and pottery. In *R. Arch.* XXXV, 1899, pp. 232–325 (158 cuts), the account is continued. The discoveries of nine sites are described in detail. In the tombs were found, besides pottery, many ivory combs adorned with animal figures of Oriental style, vases and utensils of bronze, and numerous other objects. At Acebuchal are pre-Roman walls and a sacrificial rock in addition to tombs. The tombs investigated belong to various pre-Roman periods and to Roman times. The pottery is of various kinds, primitive, rudely ornamented, indigenous of different dates, Oriental, Celtic, Graeco-Punic, and Roman. These classes are described, with illustrations. The article is continued in *R. Arch.* XXXV, pp. 376–391 (27 figs.). The tombs are classified, and the article closes with a table giving the classification, with hints of the historical events which may have changed the customs of the inhabitants, as follows:

I. Indigenous inhabitants; deposits of broken bones in the *silos* of Campo Real. II. Indigenous; collective inhumation in crouching posture under tumulus (Bencarron); foundation of Gadir by the Tyrians. III. African colonists; incineration under tumuli; Tyre subdued by the Assyrians. IV. The Turdetanians; cave for inhumation under tumulus; Greeks visit Tartessus; Carthaginians take Gadir and the coast. V. Libyo-Phoenicians; cinerary urn under tumulus; Celtic invasion. VI. The Turdetanians; people buried with crushed skulls (probably killed on the spot) at Acebuchal; the Carthaginians undertake the conquest of Spain. VII. The Libyo-Phoenicians; necropolis of Cruz del Negro; the Punic wars. VIII. The Romans; necropolis of Carmona.

Spanish Ceramics with Mycenaean and Geometrical Ornament.

— As a result of his investigations in Spain, Pierre Paris finds that there was, in early times, pottery made there, ornamented with designs of Mycenaean and geometrical styles, evidently derived from the east. The color is, however, not the lustrous black of Greek ware, and the designs and execution are inferior to those of real Mycenaean pottery. How communication between primitive Greece and Spain was established is unknown. This early art seems to have been practised even down to the coming of the Romans. (*C. R. Acad. Insc.* 1899, pp. 436 f.)

Bronze Amphora and Plate in Madrid. — In *R. Études Anciennes* I, 1899, pp. 318–320 (pl. iv), P. Paris publishes a bronze amphora and plate in Madrid. The two belong together, and are of Italian origin. They are adorned with reliefs representing warriors in combat. Though the work is not fine, and the motives have no originality, the effect is pleasing, and the form of the amphora good. The whole shows what excellent works the poorer artists and artisans of imperial times were able to imitate.

FRANCE

The Inscription on the Gourd-vase in Paris. — In *Berichte d. Sächs. Ges.* LI, 1899, iii, pp. 173–175, Otto Böhlingk discusses this curious inscription (cf. *Am. J. Arch.* 1899, p. 638). He accepts the reading of Thédénat, but regards the gourd as the speaker, interpreting, “Hostess, fill the vessel (me) with beer. Host, you have spiced wine; it is so (*i.e.* you cannot deny it); fill (me with it), give (the guest to drink).” Similar inscriptions on other vessels lead to this interpretation.

Inscriptions of the Civitas Bellovacorum. — In *R. Arch.* XXXV, 1899, pp. 103–125, Seymour de Ricci gives the first part of a ‘Répertoire Épigraphique des Départements de l’Aisne et de l’Oise.’ He publishes, with bibliographical and other notes, fifty inscriptions from the state of the Bellovacii. A relief representing Mercury is published, the original of which is in the museum at Beauvais. The accompanying inscription, *sacrum Mercurio Augusto C. Julius Healissus v. l. s. m.*, is a forgery.

Inscription from Amiens. — The inscription in the Cabinet des Médailles of the Bibliothèque Nationale has frequently been published. In *R. Arch.* XXXV, 1899, p. 226, S. de Ricci gives a facsimile with the correct reading of lines 1 and 2: *pro salute et victoria (e) Aug(usti)*.

Relief representing a Bride. — In *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 81–117, E. Michon discusses the relief in the Louvre, CLARAC, II, pl. 162, 332, and shows that it is a copy of a relief in the Palazzo

del Drago, formerly Albani, in Rome. The copy was made by Michel Monier, a student in the Académie de France à Rome as early as 1684. The two reliefs are published side by side. The copy is not exact, but shows such variations as were frequently allowed in those days. The family of Monier, Maunier, Meunier, is discussed. Nine works of sculpture mentioned in a list of the ninth Fructidor, year II, are identified.

Stone Tombs in the Valleys of the Cure and the Cousin.—In *R. Arch.* XXXV, 1899, pp. 73–96 (10 figs.), F. Poulaine describes and discusses some tombs of pre-Roman, Gallo-Roman, and Merovingian times. The valleys of the Cure and the Cousin were evidently thickly populated in those periods. The tombs are walled with slabs of stone. The valuable objects once contained in them have been removed, and doubtless utilized long ago. The objects found consist of bronze and iron utensils and arms (though arms are noticeably absent from the Gallo-Roman tombs), with a few rings and other ornaments of gold. In one ring is an onyx in three colors, in which a nude youth carrying a lance is carved. At his feet is a dog, running toward a tree. The changes in burial customs in these valleys are discussed.

Gallo-Roman Topography.—In the third number of his 'Notes Gallo-Romaines,' *Revue des Études Anciennes*, 1899, pp. 233–244, Camille Jullian shows that the Nerbune mentioned in the Chanson de Roland is not Narbonne, but the now inconsiderable village of Arbonne, near Biarritz, the Latin name of which was Narbona. This is shown by an inscription: *L. Valerius. Muntanus | Tarbellus · IIIIsignanus | domu · Narb.* The greater part of the article is taken up with a discussion of the capture of Bordeaux as described in the Chanson de Roland.

Excavations at Rom (Deux-Sèvres).—Rom, in Poitou, is the site of an ancient Gallo-Roman town, probably Rauranum or Rarauna. Important roads crossed there, and Roman milestones have been found. Excavations were carried on there for some time, beginning in January, 1887, by Blumereau. They are described by him, with remarks by C. Jullian, in *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 118–148; 9 figs. A series of buildings was discovered, consisting of what appears to be a villa (though Blumereau thinks of a bath or a basilica), and an adjoining open court surrounded in part by walls and passages. The walls were once painted. Considerable remains of hypocausts are described. Near these buildings were a few others of less importance and a well. Numerous small objects were found, among them a bronze disk upon which a chariot drawn by two horses is engraved, several intaglios, some fragments of "Samian" pottery with stamps, some Roman coins, and fibulae. An inscription on a base reads: *[Posth]umus scamnum*. A curious relief is published representing a bearded male bust, perhaps a Gallic *Dispater*.

The Discoveries at Martres-Tolosanes.—The villas and *vici* discovered in the plain of Martres-Tolosanes (*Am. J. Arch.* 1899, p. 266) are described in detail by L. Joulin, *B. M. Soc. Ant. Fr.* 1899, pp. 231–238. The coins found appear to show that all these establishments ceased to be inhabited not far from the beginning of the fifth century after Christ. Probably the villas were destroyed by the Vandals before their passage into Spain in 408. In the most important villa, that of Chiragan, most of the sculpture is attributed to the first and second centuries after Christ. The sculptural

decoration of Chiragan surpasses in importance and in variety of subject all that has been found in similar establishments of Roman imperial times. The same author describes the excavations in *C. R. Acad. Insc.* 1899, pp. 596-604.

Sculptures in the Museum at Montauban. — In *B. Soc. Ant. Fr.* 1898, pp. 349-366, E. Michon discusses two monuments in the Museum at Montauban. The first is an Eros bending his bow. (REINACH, *Répertoire de la Statuaire Grecque et Romaine*, II, p. 247, No. 7.) This came to the museum with the Ingres collection. It was formerly in the Louvre, having been before that in the collection of Quintin Crawford. Several sculptures formerly in the Crawford collection are described. The finest of these is the Satyr with a panther, now in the Somzée collection. The second monument is of brown marble, bearing three bearded busts above a thunder-bolt, below which is the inscription DIIS · PROPI · M · HERENNI VIVATIS in three lines. This monument is declared to be a forgery.

The Choiseul-Gouffier Collection. — In *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 160-211, Esperandieu gives, with appropriate discussion, a number of unpublished letters and other documents relating to the collection of Count Choiseul-Gouffier, which now forms an important part of the collection in the Louvre. The first monuments belonging to the Count reached France in 1787. At the time of the Revolution, his collection was at Marseilles, where it was sequestered in 1792. The large statue from Santorin, restored as a Muse (CLARAC, III, p. 289, REINACH, *Répertoire*, I, pp. 259, 459, No. 1951), was at one time to be employed in a public monument at Marseilles. It was to be restored by a sculptor, Alexandre Renaud, who probably did restore the feet. The other restorations — head, right forearm, and left hand — are ascribed to Lange.

The Antinous of Château d'Écouen. — In *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 54-80, E. Michon discusses, with three figures, the marble bust in the Louvre, which goes by the name of the Antinous of Château d'Écouen. He shows that the records give no foundation for the belief that the bust was ever at Écouen. The bronze bust of Antinous from Écouen is not a copy of this marble bust, but of a marble bust in the Vatican. The bronze was in existence as early as 1775, and is probably a work of the Renaissance. The bust of Hadrian from Écouen is a bronze copy of some now unknown original. Documents giving lists of sculptures at Écouen are published.

Bronze Heracles from Feurs. — Feurs, the ancient Forum Segusiavorum, has preserved many traces of Roman times. In 1873, the Museum of Saint-Germain obtained casts of two statuettes from Feurs, a satyr and a walking Heracles, the originals of which have disappeared. Inscriptions found at Feurs testify to the worship of Jupiter, Silvanus, dea Segeta, and dea Dnusia. Coins show that Hercules was worshipped in connection with a youthful person identified with Telesphorus. A statuette, found at Feurs at some time not known, a cast of which is in the museum at Roanne, represents Heracles seated on a rock over which is spread a lion's skin. His attitude resembles that of the seated Hermes in Naples. A statue in the palazzo Altamps at Rome, and a little bronze in Florence (REINACH, *Répertoire de la Statuaire*, I, 475, 5; II, 229, 5) represent the same motive. The Altamps statue is a type of the fifth century B.C., the statuette of Feurs a reproduc-

tion of a type belonging to the school of Lysippus. (S. REINACH, *R. Arch.* XXXV, 1899, pp. 54-61; cut.)

Bibraete Haeduorum.—As early as 1867, systematic excavations were begun by M. de Barthélemy at Mont-Beuvray, the site of the Haeduan capital, Bibraete. In 1870 he published in the *R. Arch.* a description of 525 ancient coins found in the old *oppidum*. Excavations have been carried on with more or less regularity from 1870 until the present time, but more than 135 *hectares* remain still to be explored. Meanwhile, M. Joseph Déchelette, who has taken charge of the excavations since 1896, publishes, in *R. Num.* (1899), p. 129, a summary description of the 1579 coins found there since the excavations began; of which 1033 are native Gaulish, 114 Roman, one Celtiberian, one of Juba II of Mauretania, and 430 badly preserved and indeterminate. As to metal, there were 4 gold, 202 silver, 119 bronze, and 708 potin. The greatest interest and importance attaches to the native coins, which are assigned, on more or less authority, to twenty-three Gallic tribes, including almost all those mentioned by Caesar. The Haedui, Remi, Santones, Segusiavi, and Sequani place the tribal name on some of the pieces; the others are attributed only by conjecture, based chiefly on the localities where they were found. All seem to belong to the first century B.C., and most of them to the latter half of this century. Of the 1033 coins, no less than 762 are assigned to the Haedui themselves; and next in number are the forty-three silver coins of the neighboring Sequani. Perhaps of greatest interest are the Haeduan coins with the names of Orgetorix and Dumnorix (ORCETIRIX or ORCETIR, four specimens; ΔΟΥΒΝΟ, DUBNORIX, or DVBNOREIX, seven specimens). It seems from the results of the excavations that the inhabitants of Bibraete abandoned the town in a body about the year 5 B.C., and migrated to Augustodunum (Autun).

Tesserae in the Bibliothèque Nationale.—MM. Rostovstew and Prou have begun a catalogue of the lead *tesserae* of the Bibliothèque Nationale of Paris. These objects are arranged by classes. So far, 517 numbers have been described, as follows: seals; commercial, national, and municipal *tesserae*; the *saturnalia*; public spectacles (*venationes*, theatre, circus, gladiators, athletes, seat-tickets (?), victors), and private *tesserae* with names of divinities or persons. (*R. Num.* 1899, pp. 199 and 278.)

AFRICA

The Aedes Memoriae at Carthage.—In *B. M. Soc. Ant. Fr.* 1899, pp. 205-207, Héron de Villefosse mentions that Paul Gauckler proposes to present to the Louvre two *ex-votos* from Carthage, the "dedication to Jupiter Hammon" and the "votive bull to Saturn." He takes occasion to discuss the inscription on the bull, which he proposes to read: S(aturno) A(ugusto) S(acrum). | C. Fabius Sat(urninus), sacer(dos) Martis, tem(enorus) Aed(is) Memo(riae), | et Fortunula co(n)iux eius, | cum fil(i)is suis votum | solvit. This is the first inscription mentioning the Temple of Memory. The word *temenorus* is the Greek *τεμενωρός*.

The Site of the Temple of Ceres at Carthage.—In *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 1-20, Father Delattre gives the evidence for his belief that the site of the Temple of Ceres was at the cemetery of Bordj-Djedid (cf. *Am. J. Arch.* 1899, p. 274). The worship of Demeter and Persephone was introduced from Syracuse after the disasters of 396 B.C., and

the worship was conducted by Greek priests. To their influence may be due the introduction of cremation instead of burial. Four plates represent fragments of architecture: an Asclepius with Telesphorus, a Pomona or Ceres, a head of Ceres and a fold of a serpent upon which an Eros was riding, and a headless and armless draped female figure.

Memmius Senecio.—In his article on the site of the Temple of Ceres at Carthage, Father Delattre publishes an inscription which is further discussed by Héron de Villefosse, *B. M. Soc. Ant. Fr. Mémoires*, 1897, published 1899, pp. 21–26. With the aid of *C.I.L.* XIV, No. 3597, it is partially restored to read: .. (*Memmio*) | (*filio*) .. (*Memmi*) | (*nepoti . L.*) *Memmi* | (*Tusci*) *lli . pronepoti . Memmi* | *Senecionis . consularis .* | *sacerdotes . cereal . universi* | *sua . pecun . fecer .* | Three generations of the family of Memmii are here mentioned. The dedication is by the *sacerdotes Cerealiū universi*, priests, or rather ex-priests, of Ceres. This body is mentioned in two other inscriptions published by Father Delattre.

The Punic Belief in Spirits.—Ph. Berger, *C. R. Acad. Insc.* 1899, pp. 307, f. translates the first line of the curse inscribed on a lead tablet from Carthage “Great Haua, goddess, queen.” (Cf. *ibid.* p. 179, *Am. J. Arch.* 1899, p. 565.) The name Haua, which is the name of Eve in Hebrew, means “breath,” “life.” This shows the belief of the Phoenicians in a world of spirits and in the efficacy of magic to invoke them. Clermont-Ganneau, *ibid.* pp. 490–492, publishes a brief discussion of the inscription. The discussion appears at greater length in the *Recueil d'Archéologie Orientale*.

Notes on Punic Inscriptions.—In *C. R. Acad. Insc.* 1899, pp. 612–614, Clermont-Ganneau discusses some of the inscriptions published by Ph. Berger, *ibid.* pp. 423–430. In the inscription, p. 424, Clermont-Ganneau removes the name *Κασιώ*[*δωρος*] by suggesting *Κασιώ*[*πεια*] or *Κασιώ*[*πη*], and explains the patronymic as a transcription of *Μυρσίλος* = *Μυρτίλος*.

Neo-Punic Inscriptions from Maktar.—In *C. R. Acad. Insc.* 1899, pp. 525–538, Ch. Clermont-Ganneau discusses several obscure points in three inscriptions from Maktar, published by Ph. Berger in the *C. R. Acad. Insc.* 1898. A more detailed discussion is to appear in the *Recueil d'Archéologie Orientale*.

Punic Inscription from Carthage.—An inscription in Etruscan letters on a plate of ivory found by Father Delattre at Carthage is transcribed by Bréal, *Journal des Savants*, January, 1899, pp. 63 ff. *mi pui melkarth ariekl Kq . . . na*. A fac-simile is given by Martha, *B. M. Soc. Ant. Fr.* 1899, pp. 185–189, who reads: *mi puinel Karthazie . . . q . . . na*. Not Melkarth, but Carthage is mentioned.

African Coins and Lamps.—The *Comptes-Rendus* of the *Académie d'Hippone*, 1898, pp. XLI–XLVII, publishes and discusses two bronze coins, one of which may be of Micipsa or Jugurtha, the other having the head of Severus Alexander. The same article describes two terra-cotta lamps, found at Tebessa; one ornamented with a boat under sail, thought to be symbolical of the Christian church, the other showing an animal, which is supposed to represent the strength of the Christian faith.

BYZANTINE AND MEDIAEVAL ART

GENERAL AND MISCELLANEOUS

Description of a Christian Church of the Second Century.—In the library at Mossoul a manuscript dated 1654 has been found which contains, besides the Syriac version of the Bible, the Apostolic Constitutions and two treatises cited in early days but since lost. These are entitled the *Testamentum Domini* and the *Jussa et Statuta Domini*. Internal evidence shows that these treatises existed at least as early as the third century of our era. The description of the early Christian basilica in the *Testamentum Domini* must be that of a church of the second century. It is not very different in type from the church of Choré at Constantinople, with its diaconicon, its atrium, and its place for catechumens. The document as found is in Syriac, but has been translated into Latin by the learned patriarch of Antioch and published by W. Drugulin, Leipzig. The chapters referring particularly to the basilica are translated into French by Albert Bataudier in *R. Art Chrét.* 1899, pp. 515-517.

Horizontal Curves in Columbia University.—In previous numbers of the *Architectural Record* Professor W. H. Goodyear has considered the problem of curvature in classic and mediaeval architecture. In the same journal for July, 1899, pp. 82-93, he describes the curvature of the steps leading up to the library of Columbia University and the curvature of the entablature as well as stylobate of the unfinished University Hall of the same University. The architects, Messrs. McKim, Mead, and White, by reviving this lost art, have added a new charm to modern architecture.

The Removal of Frescoes.—In the *R. Art Chrét.* 1899, pp. 191-207, M. Gerspach discusses the various methods of removing frescoes. As early as 1397 a fresco painting was transferred from Santa Reparata to the Cathedral at Florence. The method employed was doubtless that of removing wall, plaster, and fresco together, a cumbersome and expensive method of removing frescoes, though not infrequently employed. In 1725 Antonio Contri devised a way of detaching the fresco painting from the plaster by applying to it a canvas steeped in glue. The method was improved by Succi of Imola in 1775, who transferred to canvas the famous fresco by Melozzo da Forlì, removing it from the Floreria to the Pinacoteca of the Vatican. This method is an extremely dangerous one and is rarely perfectly successful. It is inapplicable to wall-paintings executed in tempera or in oil. The most recent method surrounds the wall-painting by a frame which penetrates through the plaster and encases the painting and its plaster ground as in a box. The outside surface of the painting is then carefully cradled to the frame in a manner calculated to prevent its warping or cracking. The wall behind the plaster is then removed as far as is necessary to free the painting. The back of the painting, that is to say its plaster ground, is prevented from breaking by a system of cross wires, which replace each portion of the supporting wall as soon as it is removed. This method is not so cumbersome as the first nor so dangerous as the second and may be employed for tempera and oil wall-paintings as well as for frescoes.

Relics from Constantinople.—Thorns, purporting to be relics from the Crown of Thorns, are preserved in reliquaries at Vicenza and Assisi in Italy, at Pampelune, Mont-Saint-Eloy, Saint Maurice en Valais, and Vezelay

in France, and at Barcelona, Spain. These are historically noticed by F. de Mély in *R. Art Chrét.* 1899, pp. 208-212. Others are recorded as at Liège, Clermont, Bourg-Moyen, Paris, Flines, Orval, Senlis, Sens; noticed in *R. Art Chrét.* 1899, pp. 318-324. Other thorns are preserved at Fermo, Ascoli, Bari, Catania, Pavia, Monreale, Venice, Bergen, Marienthal, Besançon, Josephat-les-Chartres, Bourbon-l'Archambault, Notre Dame de Cléry, Nancy, and elsewhere. These are noticed in *R. Art Chrét.* 1899, pp. 478-490.

The Development of the Toga and Pallium.—In the *Byz. Z.* 1899, pp. 490-492, J. Wilpert publishes a short article entitled 'Der Parallelismus in der Entwicklung der Toga und des Pallium.' It presents the conclusions reached on this subject in his 'Un capitolo di storia del vestiario,' published in *L'Arte*, 1899.

Mediaeval Earrings of Oriental Type.—In Russia, Hungary, and even in France have been found earrings of a peculiar type, resembling a finger ring with a polyhedral ball. They are usually found accompanied by small crescent shaped objects. In the *B. Soc. Ant. Fr.* 1899, pp. 189-193, several of these are published by J. de Baye, who suggests that the crescent was attached to the ear and served to carry the ring.

Monastic Architecture in Russia.—In the *Arch. Rec.* IX, 1, pp. 21-49, Charles A. Rich describes a series of monasteries in and near Moscow. This article is accompanied with numerous illustrations.

ITALY

Professorial Tombs at Bologna.—In the *R. Art Chrét.* 1899, pp. 400-405, M. Gerspach studies the tombs erected to professors at Bologna, publishing illustrations of the pyramidal tombs of the jurists Accorso and his son (†1265), the sculptured sarcophagi of Giovanni d' Andrea, lecturer on canon law (†1348), and of Antonio Galeazzo Bentivoglio, professor at the university (†1435). The latter sarcophagus, carved by Jacopo della Quercia, is thought by M. Gerspach to have been designed for Vari, lecturer on medicine, but afterwards acquired by the Bentivoglio family and dedicated to the professor. Illustrations are also published of the tomb by Francesco di Simone, erected to Alessandro Tartagni, jurist (†1477), and of the charmingly carved slab erected to Pietro Canonici, lecturer on civil law (†1502).

Choir Books from Brescia.—When the monasteries of Brescia were suppressed in 1796, many of their books passed into the Biblioteca Queriniana Comunale. Amongst these were a splendid collection of choir books from S. Francesco, of which eleven are antiphonals and six graduals. These were executed in 1490 at the expense of Fra Francesco Samson of Brescia. The text of the antiphonals was executed by Fra Evangelista of Saxony, and that of the graduals by Fra Benedetto of Siena. Stephano Fenaroli, the author of *Dizionario degli Artisti Bresciani*, is inclined to believe that the miniatures which adorn these volumes are the work of Fra Apollonio da Calvisano. (*Arch. Stor. Lomb.* XXII, 1899, pp. 398-411.)

The Oldest Franciscan Work of Art.—The oldest work of Franciscan art seems to have escaped attention as such, since it is not found in a Franciscan church. In the Baptistery of Florence the mosaic of the Scarsella in the apse is signed with an inscription which concludes *Sancti Francisci Frater fuit hoc operatus Iacopus in tali pre cunctis arte probatus.* The date of this work was from May 12, 1225, to July 15, 1228. The *Liber de laudibus*

beati Francisci, III, 666, informs us that Jacopus was one of the first twelve brothers gathered by Saint Francis. Jacopus is said to have seen the soul of Saint Francis depart to Heaven and to have been buried in the Portuncula at Assisi. (R. DAVIDSON, *Rep. f. K.* 1899, pp. 315-316.)

A Florentine Caricature of the Fourteenth Century.—In the city archives of Florence, in the Proceedings of the Mercanzia, is to be found an interesting pen sketch of the date 1320. It is a caricature of a combat of two knights. This is the earliest caricature of this subject, and its date shows how early Florence began to outgrow the spirit of the middle ages. (R. DAVIDSON, *Rep. f. K.* 1899, pp. 250, 251.)

The Treasures of S. Ambrogio at Milan.—In the *R. Art Chrét.* 1899, pp. 306-317, 502-512, H. Barbier de Montault begins a very careful description of the treasures of the church of S. Ambrogio, Milan. In the first and second articles he treats of the Eucharistic Boxes (fourth and fifth centuries), the Dalmatica of S. Ambrogio (fourth to eleventh centuries), and, in detail, of the Altar of Gold (circ. 835 A.D.).

Sixth Century Mosaic in the Apse of S. Michele in Africisco, Ravenna.—The sixth century church of S. Michele in Africisco once contained mosaic decoration, which is no longer in place. A drawing and an engraving of it, however, are preserved at Ravenna. M. Gerspach publishes the engraving in the *R. Art Chrét.* 1899, p. 398. In the concha of the apse is represented Christ between the Archangels Gabriel and Michael. On either side of the concha are SS. Cosmas and Damian, and above it Christ enthroned in the midst of angels.

FRANCE

Merovingian Fibulae.—In *R. Arch.* XXXIV, 1899, pp. 363-381 (pls. x, xi), H. Hubert publishes two fibulae of the "Baslieux," which he ascribes to the Merovingian period.

The Art of the Thirteenth Century in France.—Émile Male, professor of rhetoric in the Lycée Lakanal, recently published a volume entitled *L'Art religieux du XIII^e siècle en France. Étude sur l'iconographie du moyen âge et sur ses sources d'inspiration.* (8vo. Leroux, Paris, 1898.) The volume shows much study of mediaeval iconography, especially as illustrated in sculpture, in painted glass windows, and in miniatures. It also shows intimate acquaintance with mediaeval religious literature, and application of this knowledge to the interpretation of religious art. This determines the form of the work, which, like the *Speculum majus* of Vincent de Beauvais, is divided into four parts, the Mirror of Nature, the Mirror of Science, the Mirror of Morals, and the Mirror of History.

The Cathedral and the Forest.—The jest of Chateaubriand and the doctrine of Warburton that Gothic architecture originated in the imitation of French forests is developed by E. Lambin in a brochure entitled *La Cathédrale et la Forêt*, Lechevallier, Paris, 1899. The use made of native flora by French Gothic sculptors was certainly extensive, and has been studied in detail by no one more carefully than by this author. (L. CLOQUET, *R. Art Chrét.* 1899, pp. 339-341.)

Some French Rood-screens.—In the *Am. Architect*, August 5, 1899, p. 43, W. T. Partridge discusses and publishes drawings of several rood-screens. Gothic *jubès* or rood-screens are found at Evreux, Fécamp, Châtres,

Albi, Troyes, Brou; Renaissance examples in stone may be seen at Châtres, St. Croix (Quimperlé), St. Florentin (Yonne), Limoges, and Rodez, and in wood at Lamballe, Fauet, Villemaur, Arques, Luyères, and Appoigny.

The Priory and Church of La Haie-aux-Bons-Hommes at Angers. — In the *R. Art Chrét.* 1899, pp. 213-220, 275-289, T. L. Houdebine describes the priory and the architecture and paintings of the monastic church of La Haie-aux-Bons-Hommes, outside of Angers. The monastery belonged to the rigid order of Grandmont, and was built by Raoul de Veo and Étienne de Mersay between 1178 and 1182. It was richly endowed by kings of France and princes of Anjou, and became one of the most important of the order. The church, according to the traditions of the order, is very long and narrow, and extremely simple and austere in its decoration. The wall paintings have been assumed to belong to the twelfth century, but documentary evidence, as well as the inscriptions and style of workmanship, prove them to be fourteenth century productions.

Byzantine Textiles at Baume. — The abbey of Baume-les-Messieurs (Jura) contained a rich treasure of textiles now somewhat fragmentary, but representing various periods. Six or seven pieces date from Merovingian times, others from the ninth and tenth centuries, some from the eleventh and twelfth centuries, and others again from the fifteenth and sixteenth centuries. (*B. Soc. Ant. Fr.* 1899, pp. 169-170.)

The Façade of Châtres Cathedral in the Twelfth Century. — Writers upon the cathedral of Châtres differ in regard to the date of the façade with its two towers. This makes it the more necessary that details of style should be carefully noted. Such a study is begun by Maurice Lanore in the *R. Art Chrét.* 1899, pp. 328-335. By observing the forms of the mouldings, the character of the vaulting, and the position of the windows in the two towers, he reaches the conclusion that the Clocher Neuf is earlier than the Clocher Vieux, and was constructed as an isolated tower in front of the Cathedral when it was shorter than it is at present. The Clocher Vieux was never constructed as an isolated tower, but built tangent to the façade when the cathedral was enlarged to its present length.

Sepulchral Slab of the Bruniel Family at Maing. — In the church of Maing, near Valenciennes, is a sepulchral slab of blue stone inscribed with the effigies of no less than five persons, — Jean Bruniel, his wife, daughter, son, and daughter-in-law. It dates from 1356, and is reproduced for the first time in the *R. Art Chrét.* 1899, pp. 337-339.

Notre Dame de Lescar. — In the village of Lescar, a few kilometres from Pau, is the church of Notre Dame, formerly the cathedral church of the district of Béarn. Constructed on the site of a Roman town, Beneharum, this Romanesque church of the eleventh century exhibits the strong influence of Roman architecture. Of special interest are the simple barrel vaults of the side chapels, which serve as buttresses for the barrel vault of the central nave. It is described by G. Clausse in the *R. Art Chrét.* 1899, pp. 466-477.

Historical and Archaeological Notes on the Cathedral of Narbonne. — In the *Annales du Midi.* 1899, July, pp. 273-287, V. Mortet continues (cf. *ibid.* October, 1898) his notes on the cathedral of Narbonne. With the aid of documents, he shows the relations that existed between the cathedral of Girona in Catalonia, and that of Narbonne. In 1320, Jacques

Favari, director of the works of the cathedral at Narbonne, was put in charge of the cathedral at Girona, his predecessor there, a certain Henri, probably from northern France, having died. The cathedral of Clermont is compared with the cathedrals of Limoges and Clermont-Ferrand, and the spread of French art in Languedoc discussed. Finally, it is established that the cloister at Narbonne was begun under Pierre de la Jugie, and the dates of further work upon it, under his successors, are given. In the October number, pp. 439-457, the notes are brought to an end. The Archiepiscopal Palace at Narbonne was already partially finished in 1346. The materials for the building were derived from Sijean and the island of Sainte Lucie. The close artistic relations between Narbonne and Avignon are emphasized.

History of the Cathedral of Noyon.—In the *Bibl. Éc. Chartes*, 1899, pp. 457-490, M. Eugène Lefèvre-Pontalis writes a 'Histoire de la Cathédrale de Noyon.' This is not an architectural study, but an examination of the texts which concern the existing cathedral and the religious edifices which preceded it.

How the Abbey of Cluny was destroyed.—In the *R. Art Chrét.* 1899, pp. 238-242, Henri Chabeuf publishes an eighteenth century engraving made after a design of J. B. Lallemand, showing the appearance of the abbey before its destruction. Chabeuf traces the destruction of the abbey from the decree of Nov. 4, 1789, which placed the property of the clergy at the disposition of the nation, down to 1811, when the abbey was blown to pieces with powder. Following the arguments of A. Penjon in his *Cluny, la Ville et l'Abbaye*, Chabeuf shows that the people and municipality of Cluny did what they could to save the abbey.

The Relics of the Crown of Thorns at Saint-Denis.—In *R. Arch.* XXXV, 1899, pp. 392-398, F. de Mély traces the history of the thorns of the Crown of Thorns. The thorns were brought to Aix-la-Chapelle in 799. In 804 there were eight thorns there. The records of the fortunes of these thorns is traced, and it is shown that in 1204 there was at Saint-Denis but one thorn, the others having been scattered. One thorn is now at Audechs, one at Grande-Trappe de Soligny, near Mortagne, and one at Mont-Haro, l'Eure.

The Vase from Saint Savin.—In 1897, Mgr. Barbier de Montault published a very interesting study entitled *Le Vase antique de Saint-Savin*, describing an *olla* of blue glass ornamented with rings and buttons of white enamel. It was found encased within the high altar of Saint Savin, where it was used as a reliquary. A consensus of archaeological opinion assigns it to the earliest centuries of the Christian era. The original purpose of the vase and the locality of its manufacture remain undetermined, as the arguments of Mgr. Barbier de Montault for its being a Christian eucharistic vase of local workmanship are not decisive. (JULES HELBIG in *R. Art Chrét.* 1899, pp. 235-237.)

GERMANY

St. Magnuskirche at Füssen-im-Allgäu.—In the *Rep. f. K.* 1899, pp. 300-305, F. J. Schmitt gives an historical account of the St. Magnuskirche at Füssen-im-Allgäu, near Augsburg. This church belonged to the Benedictine monastery at this place, and is noteworthy as having a double choir. Herr Schmitt enumerates twenty-five other Benedictine churches with double choirs.

The Early Mediaeval Basilica in Germany.—In *Sitzb. Mün. Akad.* 1899, iii, pp. 295–377, Berthold Riehl traces the history of the basilica in Germany from the time when the Lombards first became acquainted with architecture in Italy to the twelfth century. The buildings in various places are treated in detail, and the influences of different schools are discussed. The variety of development is emphasized. The treatise is illustrated with cuts from Dehio und v. Bezold, *Die kirchliche Baukunst des Abendlandes*.

A Trip through Swabia.—In the *Gaz. B.-A.* 1899, Eugène Müntz publishes two articles of a series entitled ‘A trip through Swabia.’ The first article, October, pp. 293–306, treats especially of Stuttgart and the art educational facilities it afforded twenty-five years ago. The second article, November, pp. 369–380, is concerned with Ulm, and especially with the sculptures of Georges Syrlin.

HUNGARY

The Tomb of St. Wenceslas at Prague.—In a rare work, the *Phosphorus Septicornis*, published by Pessina de Czechorod, at Prague, in 1675, is found a description of the Cathedral of Prague, containing also the inventory of January 4, 1387, which describes an extraordinarily magnificent tomb of St. Wenceslas. This inventory is republished by F. de Mély, in the *R. Art Chrét.* 1899, pp. 335–337.

HOLLAND

Early Dutch Art.—Early Dutch art is now being seriously studied. In 1894, M. Pit published, in Paris, a volume entitled *Les origines de l'art hollandais*, and in 1898 Dülberg issued his important study *Die Leydener Malerschule: I. Gerardus Leydanus; II. Cornelis Enghelbrechtsz.* The subject is resumed by Émile Gavelle in the *R. Art Chrét.* 1899, pp. 221–226, 325–327, in an article entitled *Contribution à l'étude de l'art hollandais antérieur au XVII^e siècle; Enghelbrechtsz.* Enghelbrechtsz (1468–1533) inherited the conscientious realism of the mediaeval Dutch painters, and an ideal of beauty which was of Flemish origin. His art was modified by Italian influence. One example of his influence may be cited. His ‘Crucifixion,’ forming the central panel of a triptych now in the Museum at Leyden, was copied by a Flemish sculptor for an altar piece now in the Cluny Museum, Paris.

ENGLAND

Lacock Abbey Church.—At a meeting of the Royal Archaeological Institute, December 6, 1899, Mr. Harold Brakspear read a paper on Lacock Abbey Church, Wiltshire, which was founded in 1232 by Ela, Countess of Salisbury. He briefly described the building. The site of the abbey church, which has been entirely destroyed except its north wall, was excavated a year ago. It was found to have been an aisleless parallelogram 143 ft. by 28 ft., vaulted in seven bays. A Lady chapel, 59 ft. by 25½ ft., was added in 1315 on the south side, the building agreement for which still exists. (*Athen.* December 16, 1899.)

Knights Templars' Chapel at Garway.—In the private chapel of the Knights Templars at Garway the carved ornamentation over a trefoiled recess was laid bare in November, 1898. A cup from which a wafer projects (*i.e.* bread and wine) is supported on wings. Below is at one side a fish (the Christian), at the other an adder (the worldly-minded person). On a broken tympanum inside of the west doorway are carved a spear, a ladder,

a diadem, a cross, three nails, a sword, a sponge on a reed, and a cup with triangular cover. The symbolism of these designs and of that described above is discussed by P. J. Oliver Minos, *Reliq.* 1899, pp. 193-196; cut. He adds that the present chancel was the original church, the present nave being an addition. The old west door jambs were used as the jambs of the present "very fine chancel arch of transitional date, perhaps about 1170." The broken tympanum appears to belong to the first structure.

The Sword-hilt of Leofric.—In the Saxon room of the British Museum is a bronze sword-hilt with the inscription *Leofric me f.* The inscription was misinterpreted and the sword-hilt regarded as Roman by W. T. P. Shortt, *Sylva Antiqua Isana*, p. 143. The hilt is adorned with a diagonal key pattern. Similar patterns on a cross-shaft at Penally and a coped stone at Llanivet are compared. All three probably belong to the tenth or eleventh century, the old Celtic ornamentation surviving until the Norman times. (*Reliq.* 1899, pp. 189-192; 3 cuts.)

RENAISSANCE ART

ITALY

Ambrogio Volpi da Casal-Monferrato.—This sculptor has only been recently recognized as the author of important works of sixteenth century sculpture in Italy. His earliest known work was upon the reliquary and altar of S. Enasius in the Cathedral of Casal-Monferrato. This work was assigned in 1547 to Cristoforo Lombardo and Agostino Busti, and on the death of Busti assigned to Ambrogio Volpi, his pupil. Three years later he was called to execute the high altar and ciborium in the Certosa at Pavia. A bronze tablet has recently been discovered showing that the ciborium was completed by Volpi June 2, 1568. The bronze work of this ciborium he left to others, executing the marble work himself. The gospel pulpit and the architectural decoration of the small apses near the high altar in the Certosa are probably by the same sculptor. (C. v. F. in *Rep. f. K.* 1899, 339-340.)

Amico di Sandro.—In the *Gaz. B.-A.* June, 1899, pp. 459 ff. and July, pp. 21-36, Bernhard Berenson publishes a series of Italian pictures of the School of Botticelli, which he attributes to a single artist, whom, for the time being, he christens Amico di Sandro, though suggesting that he may be the Certo Linaiuolo mentioned by Vasari. This artist, though owing much to Botticelli, has certain marked characteristics, and in turn seems to have exerted considerable influence upon Filippino Lippi.

Ghiberti's Methods of Composition.—In the eighteenth volume of the *Abh. d. Philolog.-Histor. Classe d. k. Sächs. Gesellsch. d. Wissensch.* No. IV, Leipzig, 1899, August Schmarsow writes on 'Ghiberti's Kompositionsgesetze an der Nordtür des Florentiner Baptisteriums.' Ghiberti's earliest compositions are here studied, as found on his first Baptistry Gates. His adaptation of each composition to the form of the panel, his method of uniting two or more panels into a series, his various schemes of composition, are all noted and utilized to show (1) that while designing these gates Ghiberti made rapid strides in the art of composition, and (2) that the panels representing the Fathers of the Church were inserted in a different order from that originally designed.

The Master of the Venetian Sketch-book.—In the *Rep. f. K.* 1899, pp. 171–182, Kurt Moritz-Eichhorn writes ‘Zur Frage nach dem Meister des Venezianischen Skizzen-buches.’ The sketch-book he argues cannot be the work of Raphael. With this negative result he rests content, though evidently inclined to attribute it to Pinturricchio.

Michelangelo's Drawing for Marcantonio's ‘Mars, Venus, and Amor.’—In his dissertation *Marcanton und sein Stil* (Leipzig, 1898), II. Hirth calls attention to the ‘Mars, Venus, and Amor,’ referring the inspiration of the composition to Michelangelo. He compares the ‘Mars’ with the ‘David’ of Michelangelo. However, this seated figure in its somewhat strained attitude recalls strongly the famous torso of the Belvedere, which was discovered in 1432, was known to Michelangelo, and might easily have formed the basis for a completed figure in a group like that in Marcantonio's engraving. (R. KAUTZSCH, *Rep. f. K.* 1899, pp. 183–187.)

Works of Alfonso Lombardi.—During a recent visit to Bologna, M. Gerspach made a special study of the works of Alfonso Lombardi. He mentions in the *R. Art Chré.* 1899, pp. 405–407, the following works: ‘Death of the Virgin,’ Hospital Office; ‘Resurrection of Christ,’ S. Petronio; ‘Tomb of Ramazotto,’ S. Michele in Bosco; ‘Episodes of the Lives of Saints,’ base of the *Arca*, S. Domenico; ‘Madonna,’ Madonna dei Baraccani; ‘Heracles and the Hydra,’ Old Apostolic Palace; Funerary Statue of Ercole Bottrigari, Certosa; S. Bartolomeo, Orphanage of S. Maria Maddalena; Statues of SS. Petronio, Proculo, Franceso, and Domenico, at the Podestà; Annunciation, ‘The Fall of Adam,’ in interior of S. Petronio.

Lorenzo Ottoni at Mantua.—Two busts in the gallery of the Ducal Palace at Mantua, attributed to Bernini, and representing two princesses, when cleaned were found to be inscribed LORÉZO OTTONI · R^o · F. The same artist produced also the ‘S. Taddeo’ in St. John Lateran, Rome. (*Arch. Stor. Lomb.* XXIII, 1899, pp. 254–255.)

Lorenzo Leonbruno at Mantua.—The famous ceiling in the Ducal Palace at Mantua, known as the *Volta della Scalcheria*, and attributed in part to Mantegna and in part to Giulio Romano, is now established by documentary evidence to be the work of Leonbruno. (*Arch. Stor. Lomb.* XXIII, 1899, p. 252.)

The Triumphal Arch of Alfonso I at Naples.—‘Der Triumphbogen Alfonsos I am Castel Nuovo zu Neapel’ is the title of a study by C. von Fabriczy of the documentary and monumental evidence concerning the Triumphal Arch of Alfonso I in Naples, published in the *Jb. Preuss. Kunsts.* 1899, pp. 1–30, 125–158. The documents show that Isaia da Pisa, Antonio da Pisa, Pietro da Minano, Domenico Lombardo, Francesco Azzara, and Paolo Romano were engaged upon the monument. The task of now assigning to each sculptor his share in the monument is no easy one. It is all the more important if, with Fabriczy, we regard this as the earliest Renaissance monument in which Roman architecture is utilized as a distinct prototype.

A Forgotten Duchy and its Capital.—The town of Sabbionetta, not mentioned in Baedeker, Murray, and other guide-books, is but eighteen miles from Mantua, and is important for its sixteenth century monuments. It was planned and largely built by Vespasian Gonzaga Colonna, Duke of Sabbionetta, in the years following 1559. The theatre was designed by Scamozzi. The equestrian statues of Gonzaga and his ancestors may be

considered the masterpieces of Leone Leoni. The wall-paintings in the two palaces were executed by pupils of Titian and Giulio Romano. (*American Architect*, September 30, 1899, pp. 107-108.)

'The Assumption of the Virgin' in the Cathedral at Treviso, by Capriolo.—'The Assumption of the Virgin' in the Cathedral has long passed as a work of Piero Maria Pennacchi. Recent investigation in the archives of Treviso, however, show it to be the work of Domenico Capriolo, a pupil and son-in-law of Pennacchi. (*C. v. F. Rep. f. K.* 1899, p. 251.)

Notes from the Archives on Venetian Painting.—In the *Rep. f. K.* 1899, pp. 255-278, Pietro Paoletti and Gustav Ludwig contribute 'Neue archivalische Beiträge zur Geschichte der venezianischen Malerei.' These concern the Vivarini family: Bartolomeo Seniore, Alvise, Bartolomeo Giuniore, and Battista. Many details and dates in the history of this family of painters are here established from the archives.

Santa Maria dei Miracoli at Venice and the Lombardi.—In the *Am. Architect*, 1899, Nos. 1226-1229, 1235-1237, 1245 and following, A. B. Bibb writes a series of illustrated articles on the Lombardi family of sculptors, and especially upon the beautiful church of Santa Maria dei Miracoli, Venice.

Attributions of Paintings in Venice.—The widely circulated *Catalogue raisonné de Venise*, by Lafenestre and Richterberger, as well as the guidebooks and local catalogues, give many traditional and other attributions of doubtful value. In an article entitled 'Bildernennungen in Venedig,' in the *Rep. f. K.* 1899, pp. 341-363, Emil Jacobsen reviews the attributions of many paintings in the Accademia, the Museo Civico, the Palazzo Ducale, the Galleria Stampalia, and in a number of the churches.

FRANCE

Charles Le Brun. Some of his Paintings which no longer exist.—In the *Gaz. B.-A.* November, 1899, pp. 353-368, Olivier Merson publishes some of the vanished works of Charles Le Brun. Between 1673 and 1676 Le Bonn executed some fine wall paintings at the Château de Sceaux. Some of these are preserved only in the engravings of G. Audran, others in the engravings of Louis Simonneau. Two of these are reproduced by Merson. During the same period, Le Brun worked also at Versailles. These works, though destroyed, may be studied in the engravings of Baudet, Simonneau, and Surugue, and better still, in the original sketches of Le Brun preserved in the Louvre.

GERMANY

Old German Copper-plate Engravings.—In the *Rep. f. K.* Vols. XI-XVII, Professor Lehrs has had occasion to describe engravings from forty-two of the minor collections. Under the title 'Beiträge zur Kunde der ältesten deutschen und niederländischen Kupferstiche,' Max Geisberg, in the *Rep. f. K.* 1899, pp. 188-194, describes nine early engravings from the University Library at Munich, and four from the Bodleian Library at Oxford.

The 'Ars Moriendi,' a Nuremberg Production.—In the *Jb. Preuss. Kunsts.* 1890, Max Lehrs holds that the famous blockbook, *Ars Moriendi*, derived its woodcuts from the engravings of the *Master E. S.* The same thesis is upheld by Lionel Cust in *The Master E. S. and the Ars Moriendi*, Oxford, 1898. In the *Sitzb. Sächs. Ges.* 1899, August Schnarsow argues

that this attribution is an error. He holds that the woodcuts are of Flemish origin, but are by Rogier van der Weyden. Henry Thode now enters into the discussion with an article 'Das Blockbuch Ars Moriendi eine Nürnberger Schöpfung,' published in the *Rep. f. K.* 1899, pp. 364-370. He holds that the woodcuts are German work under Flemish influence, that they originated in Nuremberg, and may be the work of Wilhelm Pleydenwurf.

Stoneware Pottery of Cologne.—German stoneware is discussed in M. L. Solon's *The Ancient Art Stoneware in the Low Countries and Germany*. London, 1892. The historical development of this ware is, however, but improperly understood. A contribution to this subject is the article 'Kölnisches Steinzeug,' by O. von Falke in the *Jb. Preuss. Kunsts.* 1899, pp. 30-53.

Engraved Pewterware of the Sixteenth Century.—In the *Jb. Preuss. Kunsts.* 1899, p. 171, Julius Lessing described the well-known Temperantia-Schüssel as "eines der schönsten Stücke aus dem Kunstvorrath der Renaissance." Very nearly as fine is the Mars-Platte, published by Hans Demiani on Pl. 24 of his *François Briot, Caspar Enderlein und das Edelmetall*, Leipzig, 1897, and described as of French workmanship. Otto von Falke, in a review of Demiani's book, attributes the Mars-Platte definitely to François Briot. Demiani is unwilling to go so far, and, in an article in *Rep. f. K.* 1899, pp. 306-314, he shows that it may be attributed to the school of Briot, but not to the master.

HOLLAND

Two Proofs of Rembrandt's Etching of 'Christ Preaching.'—In the *Gaz. B.-A.* November, 1899, pp. 381-389, Henri Bouchot reproduces a first state of Rembrandt's etching of 'Christ Preaching.' Two other examples in the Bibliothèque Nationale, Paris, are then considered. One from the Peters collection is shown, from the omission of various details and from the exaggeration of others, to be a fabrication. The other, a legacy from M. Wasset, is shown to be an impression from the original plate after it had been worked over by Norblin (died 1830).

The New 'Vanitas' Rembrandt.—A reply by Malcolm Bell to some of J. C. Robinson's arguments in favor of the genuineness of the Rembrandt recently discovered by him, appears in *Athen.* July 8, 1899. To this a brief rejoinder appears, *ibid.* July 15. A further discussion of the question by J. C. Robinson is published in *Athen.* September 9 and November 18. In the last article, the writer devotes some space to the technique of Rembrandt and his contemporaries, and to the two styles of painting, on a light and on a dark ground.

ENGLAND

Hans Holbein's First Visit to England, 1526-1529.—In the *Proceedings Soc. Antiq.* XVII, pp. 132-145, F. M. Nichols publishes some notes concerning the work of Holbein in England, during his first visit, 1526-1529. These concern the portrait and sketches for the portrait of Sir Thomas More, the decoration of the Greenwich Banqueting House, two sculptured capitals dated 1528 in the old Chelsea Church, which he considers very decidedly in the manner of Holbein, and a stained glass window in the church at Shelton in Norfolk. The window represents Sir John and Lady Shelton, is thoroughly German in style, and may be dated about 1527.

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III. RENAISSANCE

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REPORT OF AN AMERICAN ARCHAEOLOGICAL
EXPEDITION IN SYRIA, 1899-1900

IN the summer of 1899 an expedition was organized, under the patronage of four New York gentlemen: Mr. V. Everit Macy, Mr. I. Newton Stokes, Messrs. Clarence and B. T. B. Hyde, to explore the portions of central Syria visited by M. de Vogüé in 1861-1862.

In the above year Count Melchior de Vogüé, now the Marquis de Vogüé, made an expedition into Syria, and published his discoveries in a work entitled *La Syrie Centrale*. He reported a large number of ruined cities and towns in a deserted mountain country to the east of the Orontes and in the Haurân.

During the forty years which have elapsed since these well-known explorations, the results of which M. de Vogüé published in his great work in 1865-1877, and the epigraphical, archaeological, and historical publications of M. Waddington, who was, for a time, associated with M. de Vogüé in the explorations, little or no scientific research has been carried on in these regions. A number of German scholars have visited portions of the country, chiefly for the study of the inscriptions, and the Baron von Oppenheim has made several tours which embraced those districts more easily reached; but the greater portion of the deserted mountain regions, partially explored by M. de Vogüé, and the outlying districts which he mentioned as an extensive field for archaeological research, but which he was unable to reach on the occasion of his visit, have remained unexplored up to the present time.

The fact that extensive tracts, within a comparatively short distance of civilization, and full of important archaeological monuments, should remain unvisited for so many years after their existence had been made known and their importance set forth in a well-recognized and much-studied publication, would seem an anomaly but for the prevailing prejudice on the part of archaeologists against explorations in post-classical fields and the well-known difficulties and supposed dangers connected with travel in those localities.

The regions in question, those visited by M. de Vogüé, embrace, first, a system of mountains running north and south, far to the east of the lower half of the Amanus range, bounded on the east by the level and fertile plain which borders on the great desert that stretches away toward the Euphrates valley, and extending from a point a little to the north of the modern town of Ḥamā (the ancient Epiphanea) to the mountain of Shêkh Berekât, situated to the southeast of Alexandretta. The caravan route from the above port to Aleppo passes in a broad curve to the north of this mountain. The region is traversed by an unfrequented caravan route between Antioch and Aleppo and a still more disused route leading from Lādikiyeh over the lowest portion of the system to Ma'arrit-in-Nu'mân. Secondly, the mountain district of the Ḥaurân, which has been sufficiently well mapped and needs no locating. The first region, the more northern, is practically a rocky desert. In consequence presumably of the destruction of the trees and terrace walls, the soil has been gradually washed from the ridges and mountain sides, leaving the skeleton of limestone completely bare so far as the eye can reach. Wherever the contours of the hills form a pocket in which the soil could lodge there is verdure, and here sufficient pasture is found for a few small herds of sheep and goats that afford a livelihood to the sparse population which has collected in small communities and settled in a few villages, built often out of the ruins of ancient towns. Rain falls annually for a few weeks in torrents that have swept away the soil; it is caught and preserved by

the inhabitants in ancient cisterns. This supply serves for the year until the next rainy season. There are neither springs nor wells. Thus the water question is a very serious barrier to explorers. The Haurân is less barren and is now well populated, but the inhabitants—the Druses—are in constant rebellion against the Ottoman government, and the officials of the Sultan are loath to allow foreigners to travel beyond the Turkish garrisons which form a cordon on the western, northern, and southern confines of the district.

Both regions are the resort of Bedawin tribes, and the Turkish government will not be responsible for the safety of foreigners who travel without a military escort, not only on account of the tribes, but because of the character of the settled inhabitants, who have not a savory reputation for honesty or hospitality. These, then, have been the main obstacles in the way of exploration, the scarcity of water, the difficulty of approach, and the supposed hostility of the inhabitants, which have led the Ottoman government to withhold permission from those who would travel in that portion of the empire.

The importance of M. de Vogüé's researches has long been admitted. No history of ancient architecture has been written in recent years that has not drawn largely upon his work for material to bridge over the great gap in monuments between the end of the third and beginning of the sixth century. The inscriptions which he and his colaborer, M. Waddington, published were of recognized historical and linguistic value; but, with the exception of the extension of their work by some German scholars, along the line of philological studies, and the taking of a few photographs of the monuments most easily within reach, the work of M. de Vogüé has not even been corroborated.

The present expedition was organized in order, first, to follow up the researches of M. de Vogüé, with more thorough surveys of the various districts, with careful photographic study of the monuments published by him in drawings, with extensive measurements of those monuments, and the copying of all

inscriptions. Secondly, to extend the research in the same regions, as suggested by M. de Vogüé, and to determine, if possible, the geographical limits of the architecture characteristic of this region.

The work of the expedition was divided into three general sections: one for topography and the study of general natural phenomena; one for epigraphy and historical research; the third for architecture, sculpture, and matters purely archaeological.

The first of these was in charge of Mr. Robert Garrett; the second section was divided into two parts, classical and Semitic, the former in charge of Dr. William Kelly Prentice, and the latter of Dr. Enno Littmann of Oldenburg, Germany. The third was directed by the writer.

In October, 1899, the expedition entered Syria at Alexandretta and travelled by way of Antioch into the northern section of central Syria, embracing three general mountain divisions, the Djebel il-A'la, the Djebel Bārisha, and the Djebel Halakah.

Here eight weeks were spent in making district surveys, in examining the monuments, taking photographs and measurements in detail, and in copying inscriptions.

All the existing maps were soon found to be not only insufficient, but inaccurate, and a more careful survey was made of two large groups of towns, showing their directions and distances from one another.

All of the towns mentioned by M. de Vogüé were visited by the expedition, and some thirty others which he did not see. In the towns from which he published monuments, photographs and measurements of all important buildings were taken. In most cases all the published inscriptions were found and in many instances inscriptions heretofore unknown were discovered.

The greater number of inscriptions were in Greek of the Christian era, but a sufficient number of Syriac inscriptions was found, all but one of which were previously unknown, to

call the attention of Semitic scholars in that direction. Among the towns which M. de Vogüé did not see, and which have as yet never been published, there were some visited by us which were destitute of inhabitants, and the remains of which were therefore in a remarkable state of preservation. Some were even richer in inscriptions than those described by M. de Vogüé, and the number of dated inscriptions was here surprisingly large.

The architectural remains, as presented in M. de Vogüé's book, belong chiefly to late classical and early Byzantine styles. The dated structures cover a period from the middle of the second century to the beginning of the seventh. There are no remains of mediaeval style, the only sign of Mohammedan occupation being an occasional building of ancient foundation, rudely fortified by the Arabs, and the presence here and there of mediaeval Arabic tombstones with inscriptions usually bearing dates.

M. de Vogüé published only two distinctly classic pagan monuments from this northern region, both of which were tombs. The present expedition found, besides a number of tombs which were undoubtedly of pagan origin, a temple of the time of the Emperor Antoninus Pius, with a dated dedicatory inscription.

Every one of the newly found towns possesses a ruined church; some of them as many as three. These buildings present an interesting variety of dimensions, plans, and decorative details. None of the churches published by M. de Vogüé seems to have been dated by an inscription, while the majority of those now about to be published are so dated—the dates ranging from 403–609 A.D.

The greatest variety exists in the forms and styles of tombs. There are many large monumental structures; some with pyramidal roofs, a number which consist simply of huge sarcophagi elevated upon pedestals, and a great number of more or less elaborate rock-cut tombs, many of which are ornamented with built façades.

Most interesting of all, however, are the remains of public and domestic architecture. There is nowhere so extensive

illustration of the domestic architecture of the ancients, excepting, of course, in the Pompeian remains, as that to be found in the drawings and descriptions of M. de Vogüé. The remains upon the Bay of Naples are not architectural in the truest sense, presenting as they do the most crude methods of construction. But the houses of the deserted cities of northern Syria are wonderful monuments of architecture, interesting as studies of style and construction, as well as of plan and arrangement, and in their relation to the civilization of the time.

There are houses of all classes and sizes, of two and three, and even five stories; there are villas of the wealthy, the town houses of the well to do, the houses of the moderately well off, and the small compartment houses of the poorer classes; but all are well built, all are more or less decorated, and all are of the highest interest for the history of domestic architecture. Many of these houses are well preserved, and a number of them are dated, the only dated houses of antiquity known, so far as I am aware. Public buildings are naturally rarer. Among those which are best preserved are several baths and the colonnades (*stoaæ*) which were undoubtedly used for shops. It will be seen at once that a group of buildings, of various classes and types, and all definitely dated, presents a subject for study quite unique in the history of architecture.

It has been said above that the styles of architecture represented in these regions were chiefly late classic and Byzantine, but this statement should be made with reserve; for although the pagan architecture is distinctly Roman classic of a high order, the later architecture partakes only to a limited degree of the characteristics of the Byzantine style, as we know it in other parts of the world. Nor yet does it conform to the type which has been designated as early Christian, in countries strongly influenced by Rome, but presents new forms and motives which are peculiar to the locality, and are unique so far as we are able to know.

The churches built in northern Syria at the beginning of the fifth century cannot be compared for a moment with buildings

that were being constructed in Rome or in Constantinople at the same time. In fact, there are comparatively few buildings extant that can be authoritatively assigned to that period, but, from what has been definitely determined with regard to the style of that time, we know that churches were built very crudely of concrete and brick, and adorned with ornament stolen from classic monuments. Whatever *was* original in architecture or sculpture was crude and ungainly in the extreme. In northern Syria, on the other hand, churches were built on the same basilical plan that prevailed over all the Roman world, but upon constructional principles that were not surpassed in the best periods of classical antiquity. It is only fair to admit that the abundance, in the immediate neighborhood, of the most perfect building material, influenced this perfection of technique to some extent, but this may not be said of the architectural decoration. Much of the earlier ornament, though not taken from the ruins of classic buildings, departs but little from classic models. The proportions of the columns, the profiles of bases and of mouldings, the capitals, are all designed on classic lines, and, in most cases, cannot be considered as a debasement of classic motives. It is only in the treatment of windows and doors, details to which the Romans gave but slight study, that we find a decided departure from classic designs.

There are so few remains of the domestic architecture of Roman classic and Byzantine times, that one can hardly compare the houses in northern Syria with any well-known types. But the ground plans which they exhibit are totally different from those in Pompeii or in other places where scantier remains have been found. There is an interesting variety of plans and arrangement. In method of building, the private architecture differs in no way from the religious. Houses, small and great, were constructed with the same attention to minuteness and detail in matters of stone cutting and laying. In the architectural ornament of domestic buildings, the architects of northern Syria give the broadest scope to their own

genius in the treatment of their superposed colonnades. They departed absolutely from the rules laid down by Vitruvius and composed orders to suit their own fancy, using certain suggestions from the ancient types, but infusing entirely new feeling and mixing styles as no Roman could ever have done. The results are curiously effective and not inartistic, showing a power of originality that had been wholly dead in Rome for over a hundred years.

In the early tomb structures, the same spirit is manifest. The general plan of a classic temple, *distyle in antis*, is often taken. The porch with the columns and pediment are used; the exterior form of the rest of the building preserves classic lines, but the details, the capitals, the dentil mouldings, the cornice, are all infused with motives foreign to Greece and Rome, and not found in the later so-called Byzantine.

Of sculpture, this northern region is curiously barren. In Dêhes, one of the towns visited by M. de Vogüé, is a rock-cut tomb, which he obviously did not see. This tomb is of the rock-cut variety, entered by a narrow staircase by which one descends from the level of the ground. It is a large, square chamber, each of the two sides of which is occupied by two deep, arched *arcosolia*, each embracing two sarcophagi. The spaces between the arches are ornamented with low reliefs representing pagan subjects, and the sides of the sarcophagi are carved to represent Roman couches. At the back of each *arcosolium* is a bust in relief representing the deceased.

When the Djebel il-A'la and the Djebel Bārisha had been explored from north to south, the expedition descended into the plain on the east, and moved northward again, crossing one side of the circular chain of the Djebel Ḥalaḳah by a marvellous fragment of Roman military road extending, in a perfect state of preservation, for upwards of 1200 m. This brought us into the high plain within the circle of Djebel Ḥalaḳah (*ring*). Here two towns mentioned by M. de Vogüé, — Dana and Sermeda, — both of them inhabited, were visited. Then we moved into the foothills of the opposite side of the ring, at

the foot of the great mountain of the whole region — Shêkh Berekât.

In these foothills, the site of Dêr Termânîn was visited, where M. de Vogüé found one of his largest and most beautiful churches ; but only a few stones of it now remain *in situ*, the rest having been taken to build the small modern village of Termânîn that finds subsistence in the fertile little plain of Dana. The next move was to a small village at the very foot of Shêkh Berekât, from which excursions were made to the top of the mountain and to the group of deserted towns, northeastward from the mountain, in the neighborhood of Ka'at Sim'an, a district thoroughly explored and well published by M. de Vogüé, and occasionally visited by travellers since his time.

Standing on the top of the isolated hill upon which the great church of St. Simeon stands, one may see a number of ruined, deserted towns within a radius of four or five miles ; but looking toward the north across the broad plain, in the direction of the Kurd mountains, no ruins are to be seen so far as the eye can reach, and the natives say that there are none in the mountains beyond.

From this, the extreme northern limit reached by M. de Vogüé, the expedition moved toward the east, and soon came into a rolling country, barren and rocky, that stretches away toward Aleppo. We had not proceeded far before coming upon an isolated ruin which seems to have been a small town. The other buildings are completely dilapidated, but the church is one of the best-preserved examples in Syria — every stone is in place, only the wooden roofs and doors are wanting to make it a practical house of worship. It is of the ordinary basilical plan, with two rows of columns supporting arches, with apse and side chapels, with long lines of clerestory windows all intact, a typical example showing the scheme upon which all the ruined churches of this type in the region may be restored.

Passing through Aleppo we travelled on to the Euphrates, but soon found ourselves beyond the limits of the region where

the monuments that we had been studying in the mountains are to be found. Membīdj, the site of ancient Hierapolis, was visited, but was found to be little more than a series of mounds, surrounded by remains of a wall, with architectural and sculptured fragments in marble lying about or half buried in the soil. In fact, the ruin is like all ancient sites which have been built upon again and again during the middle ages and in modern times. A glance will serve to show that there could have been but slight artistic connection between ruins of this type and those of the mountains. Europos — the modern Djerābis — is another such ruin, though here the ancient Hittite foundations add great interest, for this is understood to be the site of the Hittite capital, Karkemish.

About the middle of December winter set in, and the expedition made its way back to the coast, passing from Aleppo down the plain by way of Ḥamā to Ḥomṣ, from there out to the sea at Tripoli, and then along the coast to Beirūt, where the outfit laid up for two months.

By the first of March the expedition was again under way. The number of the party had been increased by one, on the arrival of Mr. Henry M. Huxley, who had come out from the United States to become the anthropologist of the expedition and to study the various races between the Lebanon mountains and the Euphrates. A few weeks later, at Aleppo, the expedition was augmented by the distinguished addition to its number of Dr. George E. Post, of the Syrian Protestant College at Beirūt. Dr. Post spent six weeks with the expedition, gathering material for the extension of his well-known work, the *Flora of Syria, Palestine and Sinai*. We passed the Lebanon mountains at once and moved through Ba'albek, northward to Ḥomṣ, from which place an excursion was made northeastward into the plain to Selemiyeh, the ancient Salaminias. As in the case of all inhabited towns, there are few buildings preserved on this site, but fragments abound, from which it is not difficult to form a conception of the ancient monuments.

The first important point of difference between these remains and those in the mountains further northwest is seen in the material, which here is almost exclusively a black basaltic stone, very hard, in which details were wrought with difficulty. There are remains of classic buildings in the shape of column shafts of polished granite and capitals of white marble; but the structures of the Christian period were entirely of the black stone, so far as we can judge. The second difference is seen in the use of this building material, which was difficult to quarry in quadrated blocks, and for this reason was employed in rough and uneven fragments, laid often in mortar. The third difference lies in the treatment of decorative details, which was of course consequent upon the great difference in material. But, strangely enough, the tendency here is far more decided in the direction of the style which has been called early Christian than in the mountains described above. All the carving is necessarily flat and coarse. The capitals are, generally speaking, nothing short of a debasement of the classic orders. Mouldings are rare, as in the Byzantine style, and ornament for long narrow surfaces, whether in the nature of door jambs or of a frieze, is almost invariably of the grapevine pattern, which was such a favorite symbol of the early Church. The inscriptions here are of peculiar interest, not only for the dates which they furnish for the prevalent architectural style, but for the form in which they are executed,—a great majority of them having letters in relief and of unusual shape.

The expedition then made its way to the northwest, through Ḥamā, to the southern end of the Djebel Riḥa, which forms the lower part of the mountain district visited in the autumn, and was also explored by M. de Vogüé. At the southern point of this range is situated Ka'at il-Muḍiḳ, the ancient Apamea, where there are extensive remains of the old Greco-Roman city, but all overthrown and for the most part buried. The ruins embrace a much-dilapidated circuit-wall with one of the city gates, two large detached buildings, and long lines of half-buried colonnades. The Acropolis, which rises at one side of the

ruins, was the site of an Arabic castle, and is now occupied by a populous and squalid modern village. The site has been frequently visited by scholars, and little remained for the members of the expedition to do but to measure those monuments of which sufficient remains exist to make measurements valuable, and to search for inscriptions.

The work of the expedition in the Djebel Riḥa was little more than an extension of the researches in the mountains lying immediately to the north, the Djebel il-A'la and Djebel Bārisha. The architecture of this district presents only minor points of difference from that in the northern part. There are few structures distinctly pagan, though the influence of classic art is strong. The churches are of similar type, but the private houses and tombs are somewhat more pretentious. The detached villas of the wealthier class are remarkable for their size and elegance. Two towns are made up chiefly of these extensive structures. One of them is dated 395 A.D. Many of the tombs are very large and often richly ornamented. They are of various types and forms.

Public buildings are more common here than farther north. There are two baths published by M. de Vogüé, one from Serdjilla and one from Midjleyya. The former of these is particularly interesting, owing to the remarkable state of preservation in which it stands, and affords a very clear idea of the plan and arrangement of a public bath of the later imperial period. In removing some soil and débris from the central room of this building, for the purpose of finding the interior height of the wall, we were so fortunate as to disclose a large mosaic pavement, previously unknown, preserving an elaborate design in various colors and containing in its centre a Greek inscription in mosaic, giving the date of the building, the names of the donors, and other information.

Mosaic pavements seem to have been common in the district, but most of those which we found were badly damaged by the fall of the roofs and supporting columns, and often completely buried under large fallen building stones. An

interesting fragment was found in the church at Khirbit Hâss, and another in the church of Midjleyya.

This southern portion of the mountains is far richer in sculpture than the northern part. Two rock-cut tombs were discovered in Frikyā, a town high up on the mountains, adorned with sculptures in high relief, carved in the natural rock. In one of them a funeral banquet is represented in a group of natural size, well executed, but now sadly defaced. Opposite this group is a line of busts in high relief, and above it a low frieze of small figures in procession toward an altar. The face of the other tomb is decorated with low reliefs, and the walls of natural rock within bear figures in high relief, slightly less than natural size, representing pagan divinities. Not far from this place other reliefs were found carved on the face of rocks, and a sarcophagus adorned with genii bearing garlands. All of these sculptures are, with one notable exception, classic in subject and in treatment, and are suggestive in no particular of Oriental or so-called Byzantine style.

Having explored this district up to the point where investigations had been left off in the autumn, the expedition began its march due eastward, passing again over the section of Roman road and following the probable line of its course in the direction of the Djebel 'Îs, an isolated hill below the southern slope of which is a large mound that marks the site of ancient Khalkis and the unimportant modern settlement of Kinnisrîn. This ruin, which belongs to the same class as those of Hierapolis, Europos and Apamea, presents few remains above the surface, but would undoubtedly yield richly to the excavator.

We continued our eastward march, and soon found ourselves in a chain of low hills called the Djebel il-Hâss, lying northwest and southeast to the southeast of Aleppo, and terminating to the south of the great salt lake Es-Sebkha, which appears on most of the maps. A number of ruined towns were found in these hills, one or two of which had been visited before, though not by M. de Vogüé. The remains are entirely in

black stone and much ruined, owing to the method in which the walls were built, small pieces of stone being laid in mortar or sometimes in clay. Only the doorways and colonnades were constructed of cut stone.

In the Djebel Shbêt, a group of low hills lying immediately to the east of the Djebel il-Haṣṣ, the same conditions prevail, though in the former the buildings are in a rather better state of preservation.

In both of these districts the remains above ground are principally of churches and tombs; the outlines of numerous other buildings may be traced in mounds which mark the lines of fallen walls, which have gradually been buried in the dust that drifts in from the plains.

A marked contrast to the architectural remains in the mountains farther west is found in the use of rubble and concrete in walls faced with roughly dressed stone, in the employment of arches, of many voussoirs, in windows and as relieving arches above the lintels of doorways, and in the abandonment of the column, in many instances, for a pier built up of courses. All these are evidences not only of the effect of a different material, but the expression of a different idea. The inscriptions which we discovered threw light upon the date of these buildings, which was found to coincide with that of the Christian architecture in the mountains nearer Antioch. The monuments of these two districts may be classed with those of Selemîyeh, the black stone country farther south. Not only are the methods of construction similar and the details of the same nature, but the character of the inscriptions, the form of the letters, which are usually in relief, and the dates are of the same general class. As is illustrated in several tomb structures, quadrated dry masonry was not unknown, but this is invariably used as a facing to a concrete body or as quoins and levellers.

Decorative details are of the same class throughout, the grapevine ornament predominating for flat surfaces and the capitals conforming to a crude and simple debasement of the orders.

Figure sculpture, though not common, is represented by a number of flat reliefs, which, though crudely executed, are an interesting contribution to the history of early Christian sculpture.

Travelling a little east of south from Djebel Shbêt, we passed out of the basaltic country and at Isriyeh came into a white limestone country again. The above site shows few remains above the dust, except a fine little temple of the later Antonine age, standing on a rocky eminence above the buried ruins of the town. This temple, which preserves its cella in completeness, but nothing more, is an excellent example of the richness and over-elaboration of its age.

From Isriyeh the expedition moved, over an untravelled route, across the waterless tract of plain and mountains that lies between that place and Palmyra. At the latter well-known site a halt was made for photographing the ruins and making squeezes of some of the inscriptions. While here Dr. Littmann found a small number of unpublished Palmyraean inscriptions.

From Palmyra the expedition skirted the northwestern edge of the Arabian desert on the way to the Ḥaurân. At Ḍumêr the black stone country was entered again. Here a temple in that material was photographed and measured, and at Ḥarrân il-'Awâmîd, farther south, the remains of another temple in the same stone were photographed, but the site being completely covered by native houses, it was impossible to measure it. The Ḥaurân was entered at il-Haiyât, where an interesting monument and inscriptions of various dates, some published and others unpublished, were found. The expedition then moved to the eastern slope of the Ḥaurân and, with Tarba as a centre for the camp, made excursions to various sites on the eastern borders of the Hauran and into the desert to the Ruḥbeh Oasis. On the latter excursion Dr. Littmann copied a large number of Ṣafaïtic inscriptions, most of which were unknown.

The work of the expedition in the Ḥaurân was devoted chiefly to the study of monuments already known. A number

of known but unpublished temples, in classic style, were photographed, measured, and studied, with a view to publication. Some unpublished inscriptions, in Greek and in Nabataean, were found and copied.

The most important function of the photographs taken in the Ḥaurân will be to show the dissimilarity and lack of connection between the Christian architecture of this region and that in the mountains of northern Syria, a distinction that is lost sight of in M. de Vogüé's book. They show, in the first place, the great constructional difference, which is partly the result of the difference between black basalt and limestone as building materials. The churches of the north are built of large quadrated blocks perfectly cut and laid dry. Those of the Ḥaurân are built chiefly of loose broken stones faced with squared but undressed blocks, cut-stone being used only in arches, and for lintels and jambs. In this they resemble the churches in the black stone region described above. In the second place they illustrate a difference in plan and interior arrangement. The churches of northern Syria are planned with a longitudinal system of columnar and arched supports for wooden roofs, while those of the Ḥaurân have a transverse system of piers and arches supporting roofs of stone, and the use of stone in this way seems to have been a matter of choice, for the classic buildings in the same district were certainly provided with wooden roofs. Thirdly, the ornament of the northern churches is adapted from the decorations of classic edifices, while the churches in the south are almost destitute of ornament, although the architects had the finest classic models close at hand. In a few instances fragments of ornament are borrowed from temples which had been destroyed.

There are in the Ḥaurân, besides the classic and early Christian remains, a certain number of monuments which belong to neither of these categories. I refer to those buildings already treated to some extent by M. de Vogüé from Si' and Suwêda. The fact that these monuments occur in ruins where Nabataean inscriptions are to be found, makes it seem not improbable that

they may have been of the same origin. The remains at Sî are only fragmentary, though very extensive, but those at Suwêda include portions of a peripteral temple, a number of columns with sections of architrave and the lower courses of the cella wall, still intact. Though following the general plan and outline of a classic temple, these remains, which are, of course, in basalt, bear little resemblance in their details to those of classic architecture. The columns are widely spaced. Their bases sometimes take the form of inverted foliate capitals; the shaft is without diminution or entasis. The capitals bear only the slightest resemblance to the Roman Corinthian, while the architrave is made up of members entirely unclassic. The pilasters of the cella wall have bases which correspond to the inverted capital bases of some of the columns; the jambs of the main portal and the mouldings of the niches on either side of it, although exhibiting elements of classic style, are distinctly foreign in treatment. A large number of measurements and detail photographs were taken of these remains and fragments by the present expedition. A few Nabataean inscriptions, heretofore unknown, were found and copied, and squeezes were taken of all, both the published and unpublished.

Sculpture seems to have flourished in the Ḥaurân from an early period, but little is now in evidence except in sadly broken fragments. At il-Haiyât we found niches and bases of statues and references to them in the inscriptions, but few sculptures could be found, save two heads and one headless and armless figure. In Shaḳḳa a lion was found, sculptured in the round, and here, as in other places, niches for statuary and small fragments exist. In Sî inscribed bases and pedestals for statues abound, but only small fragments of the statues to which they belonged. The iconoclastic spirit of the early Christians or of the later Mohammedans seems to have destroyed all vestiges of this art in the Ḥaurân.

The majority of the inscriptions found in the regions visited are Greek, as one would naturally expect. The expedition collected, however, inscriptions in eight different languages, —

Greek, Latin, Syriac, Hebrew, Palmyraean, Nabataean, Ṣafaïtic, and Kufic or Arabic. In addition to the copies or drawings of these inscriptions, squeezes were made so far as was practicable, and photographs were taken of the monuments. In the case of some, particularly the Ṣafaïtic inscriptions, of which no squeeze was possible, the letters were crayoned, and photographed both before and after the crayoning. Three hundred and eighty-six Greek inscriptions were found by the expedition, together with fifteen in Latin. Of these considerably less than half were known before, and some of these, especially such as were published only from copies made by Pococke, in 1737-42, were found to be somewhat different on the monuments themselves from what they appear in the publications. This is true in particular of the inscriptions on Djebel Shêkh Berekât, *C.I.G.* 4449-51, and in the tomb of Abedrapsas at Frikyā, *C.I.G.* 4463-4 and 9899. The date of the Frikyā tomb is given by Pococke as Ξ AX, which was emended by Boeckh to Ξ ΛZ, 237 (168 A.D. according to Boeckh), the true date being ς ΛX, 636 (*i.e.* 324 A.D.), which is perfectly clear to one who climbs up to it. Of the total number of Greek and Latin inscriptions 239 in Greek and 10 in Latin were found in the mountains of the north, between Ka'at il-Muḍik, the ancient Apamea, and Djebel Shêkh Berekât: 73 in Greek and one in Latin were found in the Haurân. The Latin inscriptions, of which 10 out of the 15 are from Ka'at il-Muḍik, are chiefly epitaphs of Roman soldiers. Two of the stelae are of special interest, as they have figures in relief above the inscriptions. One of the other inscriptions is in both Latin and Greek: one is a small fragment of what appears to be an inscription in honor of Septimius Severus. Another found at Khân il-Abyaḍ, on the way from Palmyra to Damascus, while badly preserved, is interesting because of the characters, resembling minuscule letters, in which it is written. The last of the Latin inscriptions was found at Shehba in the Haurân, the ancient Philippopolis, and may throw some light on the history of the Emperor Philip. Most of the Greek inscriptions are Bible verses, generally inaccurate

quotations from the Septuagint version of the psalms, or simply religious formulae on the lintels of churches or houses, like that on the west entrance of the church of St. Sergius at Dâr Kîta, for example: Εἰς θεὸς (καὶ) ὁ Χριστὸς αὐτοῦ (καὶ) τὸ ἅγιον πνεῦμα. Βοήθη. Μη(νὸς) Δεσίου ἰνδ. εἰ τοῦ επφ' ἔτους. Τοῦ ἁγίου Σεργίου. Inscriptions of this sort, or Christian symbols in various forms, or simple crosses, are found everywhere, especially in the northern country, over house doors and windows, on walls and porticoes and even in stables, so that they seem to be due to the superstition, rather than to the religious feeling of the people, and to have been intended merely to avert evil from the houses. In this, however, they were not permanently efficacious, and now they serve chiefly to date the buildings to which they are affixed. Eighty-five of the total number of inscriptions give dates numerically, reckoned according to various eras. Most of those in the mountains of the north are dated according to the era of Antioch, from 49 B.C.: elsewhere the Seleucid era is the most common. The dates of some other inscriptions are fixed by the name of the emperor, or may be determined from the internal evidence of the inscriptions themselves. The oldest dates are, of course, those on funerary monuments and pagan shrines. The earliest of these seems to be one on the Djebel Shêkh Berekât, *C.I.G.* 4449, ἔτους ελρ' (Pococke gives ΟΥΕΔΡ, which Boeckh read ἔτ[ου]ς[ς] δρ'), probably 86 A.D. The era here is uncertain; but other dated inscriptions from this region belong unquestionably to the early part of the second century. Very few inscriptions of the third century were found, one of which is at Kal'at il-Mudîk, one at Dumêr, one or two at Shehba, and one at Shaḵḵa: the era of this last, however, is not certain. The great majority of the dated inscriptions are from the fourth, fifth, and sixth centuries. The earliest certain date for a house or church is on a lintel found beside the road at the village of Sermeda, dated 341 A.D.: the inscription is Christian. A lintel *in situ* at Bâbiṣḵa bears the date 351 A.D. (possibly the ruins of a villa near Zebed are

to be dated 326 A.D.). The last date is on the church of St. Sergius at Bābiskā, built in the year 609 A.D.

The inscriptions on church doorways are often of more than mere chronological value. They show something of the doctrines and the organization of the church. Some of them refer to the Trinity (Dār Kîta, 550 A.D., Selemîyeh, il-Bâra), to the Mother of God (Dêrsêta, Selemîyeh, 604 A.D., Mektebeh, etc.), or to one or more of the saints: often they give the names and titles of various civil and ecclesiastical dignitaries under whose administration the buildings were erected. Besides the inscriptions on houses and churches, and the funerary inscriptions, a few Greek inscriptions of other sorts were found by the expedition. Some are boundary stones of church lands (of St. Stephen at Djūwāniye, 2 stelae, 554 A.D.; τοῦ ἁγίου Κηρύ[λ]ου at Selemîyeh, of the Mother of God at Hamā). Some, especially those from Kal'at il-Muḍîk and Shehba, have historical value. One is a long inscription in mosaic in the pavement of the bath at Serdjilla: one is from the lintel of the gateway of a ruined city now called Khanâsir. Lastly, some are from pagan temples and shrines. Foremost among these are the inscriptions from the Djebel Shêkh Berekât, a long day's march west of Aleppo. The summit of this bare and almost conical mountain is the site of a shrine and precinct sacred to two divinities, whose names are given in the inscriptions on the temenos wall, Διὶ Μαδβάχῳ καὶ Σελαμάνει, θεοῖς πατρώοις. Eight of these inscriptions were found by the expedition, including three which had already been published in the Greek corpus after copies by Pococke. These copies, however, were inaccurate and were amended by the editor, who comparing an inscription from Palmyra, *C.I.G.* 4480, published the first name Μάλβαχος which he thought might be identified with Ζεὺς Ἥλιος, while the name of the other he associated with Σελήνη. Dr. Littmann has called attention to the fact that the origin of these names may well be found in the Syriac words *madbakh* or *madbkhâ*, "altar," and the Syriac *shlâm*, Arabic *salâm*, "peace." A day's journey south from this temenos, on the northern-

most spur of Djebel Barîsha, and looking off over the lower lying hills toward the Shêkh Berekât which towers above all the rest, stands a beautiful classic temple of the period of the Antonines. Immediately before it are still to be seen the foundations of an altar, to all appearances much older than the temple itself. The gateway of the temenos wall is still standing, and bears this inscription, $\Delta\iota\ \text{Βωμῶ}\ \mu\epsilon\gamma\acute{\alpha}\lambda\omega\ .\ .\ .\ \tau\omicron\nu\ \pi\acute{\upsilon}\lambda\omicron\nu\ \acute{\alpha}\nu\acute{\epsilon}\sigma\tau\eta\sigma\alpha\nu$. Evidently those who built these walls were worshippers at what to them were ancient shrines, and neither the god of the one place nor the god of the other had a name.

The Syriac inscriptions are the more important because of the scarcity of epigraphical monuments in that language. Furthermore, M. de Vogüé, in his 'Notes d'Epigraphie Araméenne,' in the *Journal Asiatique*, Paris, 1898, p. 24, has said: "L'inscription de Dehhes—est seul de son espèce au milieu d'une région, dont toutes les inscriptions sont rédigées en grec." This expedition, however, has for publication fifteen Syriac inscriptions from the country about Dêhes. These are (A) from the Djebel il-A'la: (1) Two fragments of the same lintel, at Beshindelâya, (B) from the Djebel Bârîsha and the Djebel Ḥalakah: (2) The famous inscription on the baptistery at Dêhes, which has been published several times already, but to which a thorough cleaning of the stone has given a new and presumably final rendering. (3) The inscription from the baptistery at Khirbit il-Khaṭîb, dated 586, *i.e.* 537 A.D. (the last figure is not certain). (4) The lintel of the church in Bākîrḥa, partly destroyed, giving the names of those who built the doorway. There are traces of the date, which seems to coincide with that of the Greek inscription on the same lintel. (5) A short fragment from Bākîrḥa, containing the beginning of an inscription in large and well-formed letters. This fragment has been brought to America by the expedition. (6 and 7) Two inscriptions from the church at Khirbit Ḥasan—one over the west door on the south side, the other at the side of the east door in the same wall. The former of these is the more important. It is a long inscription, of the year 556 "of the era of Antioch,"

i.e. 507 A.D., giving an account of the expenses for the building of the church: the other gives the names of certain men who had to do with the building. (8 and 9) Graffiti in a cave near Mâr Sâba, giving names of monks. (10) Graffiti in a tomb at Bâfittîn. (11) Fragment of a large inscription found among the débris within the ruined walls of a church at Dâr Kîta. The characters of this last are the best and most regular Syriac letters known up to this time. A Syriac inscription, in exceedingly fine letters, however, has been found recently in the ruins of a monastery in Africa by Dr. B. Moritz. In the Dâr Kîta inscription the words "*Praised*" . . . "*Trinity*" . . . "*His Pity*" are to be read. Probably this was the church of the Trinity, and thus, at least, the *terminus a quo* of the inscription is fixed approximately. (12) An inscription on two panels in the upper story of a colonnade in Bâbîşkâ, of the year 596 "era of Antioch," *i.e.* 547 A.D., telling when and by whom this colonnade was built. In the inscription the word *estewā* = the Greek *στοά* is certain. (13) A single name, in large letters, on a column in Bâbîşkâ. (14) Graffito on the jamb of the church door at Ksêdjbeh. (15) Graffito on the church at Kâşîl-Benât, on the Roman road between Hârim and Sermeda. Besides these, there were found (C) at Mektebeh in the Djebel il-Ḥaṣṣ three inscriptions, two of which contain verses from the Bible and are valuable as contributions to the history of Syriac writing. Finally (D) at Zebed, one inscription saying that this is the "*thronos*" of Rabbûlâ, and two others giving Syriac words in Greek letters.

Few Hebrew inscriptions were found. Among these are several graffiti from il-Bâra which are of unusual importance. Two others are from the synagogue at Têdif and date from the Middle Ages. One half of these is in Hebrew, the other half in Arabic, but written in Hebrew letters. They refer to the building of various parts of this, the "Synagogue of Ezra the Scribe." Finally the so-called "synagogue" inscription in Palmyra: this has been published before.

One would naturally suppose that the exploration of Palmyra

had been complete, so far as monuments upon the surface are concerned, and that there remains little for epigraphists to do, except in connection with excavations; but the expedition found, in course of a brief visit, that there are still many unpublished inscriptions to be found among the ruins, and especially in the houses of the modern village that clusters about the ruined temple of the Sun. No less than seven new inscriptions were discovered, several of which are merely tombstones bearing single names; but two were important honorary inscriptions, on columns of the temple of the Sun, dating from the years 8 A.D. and 40 A.D. respectively. Two others were dedicatory inscriptions upon altars, the first to the gods 'Aglibôl and Malkibôl, and dating from February, 23 A.D. The second, to the hitherto unknown deity שׂר אלקים, and dating from July, 131 A.D. Besides these a number of badly weathered inscriptions were worked out, partly from the stones, and with the aid of copies of Waddington's publication of the Greek texts which appear with them. In addition to this work, it was found to be not unprofitable to compare copies of the published inscriptions with the monuments themselves, as a number of errors were detected in this manner, even in addition to what A. D. Mordtmann has done (v. *Neue Beiträge zur Kunde Palmyras*, München, 1875). The funerary inscription published by Lagrange (*Revue Biblique*, I, p. 433-438) and by Sobernheim (*Beiträge zur Assyriologie*, 1900), and the inscription beneath a relief, dedicated to the gods Arşū and 'Azizū, published by Sobernheim, were compared and corrected. But the work of the expedition in Palmyra was necessarily cursory.

Among the Nabataean inscriptions found by the expedition is one which has proved to be among the oldest inscriptions of the northern part of the Nabataean kingdom. This was found near the road from ẖanawât to Si'. It is a stele of the year 308, evidently of the Seleucid era and therefore of the year 5-4 B.C. The letters are very well cut and perfectly preserved. Besides this two fragments of the long inscription of the temple at Si' were found, in addition to the fragments

already known, one of which gives the name Mo'aiyerū (the father of Maleikat, who built the temple), and the other only the words "the inner and the outer temple." Lastly, the inscription on the altar at Kanawât seen by Bochart in 'Ireh, and now in Suwêda, and published by Ewing and by Sachau, was carefully copied and photographed.

In making an excursion into the Ruḥbeh, Dr. Littmann discovered a number of sites abounding in the so-called Şafaitic inscriptions. These crude writings, which are found in limited areas, but covering the uneven surface of the dark rocks for many yards in all directions, contain seldom more than names and genealogies, but the variety of form and size of the letters is astonishing. These names were found to be still perpetuated, in many cases, among the Bedawins. The inscriptions from this region published by M. Halévy were of this fragmentary type, and those found by M. Dussaud, whose book upon the subject has just been published, were of the same character. The inscriptions now described, especially those of il-'Isâwî, were not only almost all plainly written and very nearly complete, but present whole sentences after the names and genealogies. The presence of these new words is of importance in facilitating the study of the language. While the letters are very closely related to the South Arabian alphabet, it is not possible as yet to identify the dialect. Dr. Littmann has identified, in these new inscriptions, the signs for the sounds represented in Arabic by the letters **ث ذ ض ظ غ** which have not been recognized before. The photographs referred to above will, it is hoped, facilitate the study of these peculiar and interesting inscriptions.

About fifty Kufic and Arabic inscriptions and graffiti were found and copied. Most of these are interesting; only a few important. The most remarkable are two richly ornamented inscriptions on the mosque at Hâss, one dated 456 of the Arabic era, and also a short Kufic inscription in Kal'at il-Muḍik of the year 445, and the Kufic inscriptions in Sele-miyeh, one of the year 105 or 150, and another of the year

481. A tombstone near Bāmuḳḳa, in the Djebel Bārisha, belongs to the period of the transition from the Kufic to the Arabic writing.

The members of the expedition, with the exception of Mr. Huxley, left Syria about the middle of June. Mr. Huxley remained to continue his anthropological studies in the interior. The tangible results, consisting of material for the making of new maps, photographs, measurements and notes of the architecture, copies and squeezes of the inscriptions, together with a number of squeezes of architectural details, were sent at once to the United States, where a full publication is being prepared.

Princeton University has very kindly offered the use of commodious quarters, in the new library building, for the work of making the casts and preparing the other material for publication. This publication, which it is hoped will appear within two years, is to contain, besides maps of four separate districts and a large route map, a detailed account of the architecture of the regions explored. A large number of photographs, with plans and elevations, will appear to illustrate some of the monuments, published in drawings by M. de Vogüé, and many of the unpublished buildings, which are of interest as being dated or as illustrating new phases of style. Particular attention will be paid to the unpublished pagan monuments of architecture and sculpture, to churches and baptisteries, to the various types of tombs, and to domestic architecture, of which this region furnishes the most extensive and varied remains of any portion of the world. The inscriptions, both Classic and Semitic, will be published in the form of careful copies drawn to scale and with photographs both of the inscription and the monument on which it appears, wherever that is found practicable.

The gratitude of all interested in this expedition is due, in no small measure, to his Excellency Hamdy Bey, director of the Imperial Museum at Constantinople, for the generous interest which he has shown in its success from the very

beginning and for his invaluable counsel. The members of the expedition had the honor of being the representatives of this Museum, with instructions to report to the director the location and condition of the monuments in these regions and to make suggestions for their preservation; and it was through his influence that the approval and coöperation of his Majesty's government was secured and the work made possible.

HOWARD CROSBY BUTLER.

PRINCETON,
November 12, 1900.



THREE ARGIVE LEKYTHI IN THE MUSEUM OF
FINE ARTS IN BOSTON

[PLATES IV, V, VI]

THE three lekythi here published for the first time form a notable feature of the recent acquisitions of the Boston Museum. Little is known of their exact provenance. No. I was purchased by the Museum in 1895, having previously changed hands several times, and was finally traced to an Athenian dealer, according to whose account it came from Thebes. Nos. II and III were acquired by the Museum in the same year, together with another lekythos (not yet published) decorated with a band of sphinxes and lions, from a private collector, who had bought all three at Corinth, but who had been unable to obtain any information as to their history or finding-place. The description which here follows has been drawn in the main from the inventory of the Museum.

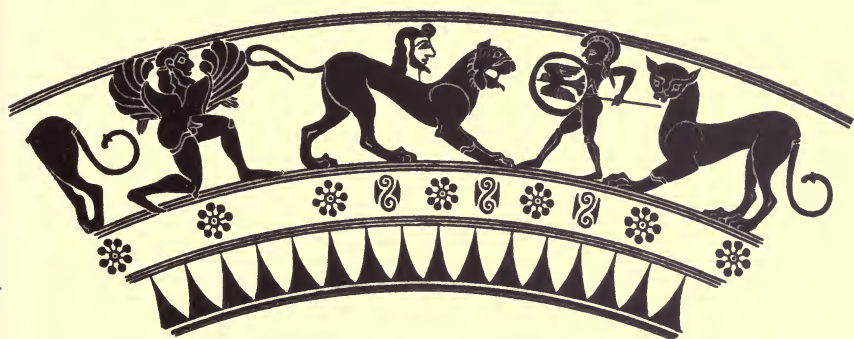
I (PLATE IV) (Inv. No. 6506). Lekythos; height, 0.067 m. Form similar to those in the Berlin Antiquarium (Furtwängler, *Vasensammlung*, pl. v, No. 102). Body plummet shaped, with cylindrical neck and base, broad flat lip and handle. Clay pale greenish yellow. With the exception of the neck, the entire vase is covered with decoration. On the top of the lip is a radiating pattern divided into two parts; the inner a wave pattern, encircling the opening, and the outer a tongue pattern. Around the rim a simple meander. On the outside of the handle a triple-plait pattern, and on the shoulder a palmette lotus chain. Below this, encircling the body of the vase, is the principal design — Bellerophon's fight

with the Chimaera. The horse Pegasus is represented in profile, flying to left, his wings, of the Oriental type, being indicated in dark brown and red. He wears a bridle, the reins of which are held by Bellerophon, represented as bearded¹ with the flesh drawn in violet paint, in his left, while preparing to hurl his spear with his right.² The Chimaera advancing toward him, in profile to right, is of the usual type, with lion's head and body, goat's head and neck projecting from the centre of his back, and tail in the form of a serpent. Red paint is used on the necks of the lion and goat, the tongue of the former being indicated in violet. On either side of the principal group is a sphinx, with a *stephané* on its head, walking away from the central figures. They are separated by a vertical scroll pattern directly beneath the handle. In the field rosettes, crosses, pothooks, and various geometrical designs, and between the Chimaera and Pegasus a lizard. Below the central frieze is a smaller frieze representing dogs chasing a hare. Below this is a band of double-plait pattern, and around the foot are rays. All decorations are in a dark chocolate brown, with very delicately incised lines used in all the figures. The vase is intact.

II (PLATE V) (Inv. No. 6507). Lekythos; height, 0.065 m. Shape similar to No. I, but with less elaborate decoration. On the lip are three bands, the inner a meander, then a wave pattern, and rays on the outside. Around the rim dots. On the handle a double-plait between two vertical bands of a herring-bone pattern. On the shoulder a palmette lotus chain, in which the scrolls are curved inward, like the volutes of an Ionic capital. Around the body a frieze containing the principal design. In the centre a lion, profile to right, from whose

¹ The beard itself has almost disappeared, and only a careful scrutiny of the surface with a glass reveals any traces of it. For this reason it escaped the notice of the designer of the drawing, and is not indicated.

² It would seem at first sight as if the spear were held in the *left* hand, but as the right is the natural spear hand, and as the spear passes *behind* Bellerophon's head, there can be no question on this point; faulty drawing is responsible for the confusion.





back grows a bearded human head. Facing him a warrior to left, armed with Corinthian helmet, cuirass, and greaves. In his right he carries his spear horizontally, as if about to thrust, and in his left a shield (device, flying eagle). Behind the warrior a panther, crouching, body in profile, head full front; behind the lion, under the handle, a winged, male, bearded figure, in the usual flying and running schema. Below, a band of rosettes and geometrical ornaments; around the foot, rays. Clay of a pale brownish color, with decoration in various shades of brown running almost to black. Incised lines used in all the figures. The vase is intact.

III (PLATE VI) (Inv. No. 6508). Lekythos; height, 0.07 m. Shape similar to preceding. Pale brownish yellow clay. With the exception of the neck, the entire vase is covered with decoration. On the lip three bands, 'star' ornament in the centre, wave pattern, and rays outside. Around the rim a simple meander, and on the handle a triple-plait pattern. On the shoulder a frieze, a lion to right about to spring on a goat walking to left. Behind the latter another goat browsing to right. In the field pothooks, Maltese crosses, rosettes, and geometric ornaments. Around the body is the principal design, as follows:

In the middle a centaur of the earliest type, with the entire figure of a man joined to the body and hind legs of a horse, walking to right. He is bearded, and wears a short, close-fitting jacket with short sleeves. In his right, extended behind him, he holds the branch of a tree, and leans with his left upon a long staff, which is seized by another figure advancing to left. The latter is bearded, and wears a garment not unlike that of the centaur, with greaves upon his legs; a large sword hangs at his side, and in his raised left he holds an object with four prongs. Behind him, running to right, is a youthful, beardless figure, carrying a sword in his right, his left raised. Between this figure and the centaur at the back, a sort of pedestal, surmounted by a round object, on which two eagles are perched. On either side is a flying eagle. In the field

swastikas, rosettes, pothooks, and geometric designs similar to those on Nos. I and II. The decoration is in dark brown, with incised lines; red is freely used in all the figures. The lip and handle have been broken off, but repaired without restorations.

That the subject of No. I is Bellerophon's fight with the Chimaera is, of course, evident; but the explanation of the subjects of Nos. II and III is not apparent at first sight. Before considering the vases in detail, it will be well, even at the risk of repeating some well-known facts, to define the Argive style, and to discuss its proper position in Greek ceramic art.

I have used the term 'Argive' rather than 'Protocorinthian,' since a careful study of this period during the past three years has convinced me that the old term is thoroughly unsatisfactory, and that the rightful home of the style lies in the Argolid. While I cannot regard the Argolic origin of the so-called 'Protocorinthian' style as being absolutely established, the reasons for assigning the style to that locality are too strong to be ignored, and give, at least, a name infinitely more appropriate than the old one. That was a term invented by Furtwängler,¹ not as a definite statement of its origin, but simply to signify its priority to the Corinthian class, with which it has much in common. But though this term has been generally accepted, in default of a better, for the last twenty years, it has always been regarded as unsatisfactory and misleading, and only the inability of scholars to unite upon one definite centre for the style has prevented its being supplanted. Up to the present time no definite origin had been assigned to it, except Chalcis.² A hint to the solution was given some years ago by the excavations at the Necropole del Fusco at Syracuse, and at Megara Hyblaea, conducted by Orsi. But with the close of the American excavations at the Argive Heraeum, con-

¹ 'Bronzefunde aus Olympia,' *Abh. d. Berl. Akad.* 1879, pp. 46, 51.

² Helbig, *Die Italiker in der Poebene*, p. 84. Helbig's view is also supported by Dümmler (*Jahrb.* 1887, p. 19), and more recently by Stuart Jones (*J.H.S.* 1896, p. 333).





ducted by Dr. Charles Waldstein, this so-called Protocorinthian style was found there in such quantities as to justify him in his idea from the beginning of the excavations that the so-called Protocorinthian style is of Argive origin, a view since expressed by Furtwängler.¹ This ware found at the Heraeum far exceeded any other class of vases found on the site, and was present in larger quantities than at any other Greek site, not excepting Syracuse and Megara Hyblaea. It is, of course, true that mere quantity is not alone sufficient to give a name to a class of vases, but considering the great activity of the Argolid during the Mycenaean epoch as a centre of the vase industry, the close connection between this style and the Mycenaean, which will be shown below, and the fact that at the Heraeum alone have we a full development of the style from beginning to end, the adoption of the term 'Argive' becomes extremely probable, if not absolutely certain, and is at least a far more satisfactory term than 'Protocorinthian.'

I regret that pending the appearance of my article on the vase fragments of the Heraeum, shortly to appear in the report of the excavations, I can only, in the compass of this article, briefly outline the theory which has been more fully developed there. Besides affirming its Argive origin, I believe that the Argive style is not, as has been heretofore supposed, a connecting link between the geometric and Corinthian styles, but rather a direct offshoot of the Mycenaean style, and contemporaneous with the geometric, being finally succeeded by the Corinthian.

In the first place, fragments of this style were found at the Heraeum in the lowest levels, along with Mycenaean fragments, which was the same case at Aegina, according to Dümmler (*loc. cit.*). Secondly, the vases and fragments of the former style were seen to fall into three classes, with connecting links between them. I shall term these three classes of Argive ware, Early, Linear, and Oriental. It may be easily seen that the prevailing principle of the Argive style is linear, *i.e.* a use of

¹ *Berl. Phil. Wochenschrift*, 1895, p. 202.

pure line ornamentation, as opposed to pictorial ornamentation (as in the Mycenaean), since the belly of Argive vases is decorated with a series of parallel lines, stripes, or bands, varying from lines of a hair's-breadth to much coarser ones. Now, in the decadence of the Mycenaean style, the pictorial motives, which play so large a part in the earlier classes, become conventionalized, and, in the later period (the third and fourth classes of the style, Furtwängler and Loeschcke, *Mykenische Vasen*, p. viii), the tendency to ornament the bellies of vases with parallel stripes or lines becomes very noticeable. Among the Heraeum vases, there appear several of a lekythos shape, with short neck, whose sole decoration consists of parallel lines or bands, the technique, in clay, glaze, and decoration, being closely allied to the Mycenaean. Also, of similar technique and decoration, a number of vases resembling very strongly the 'pseudamphora,' save that they have but one handle. The shapes, however, are not those of the Mycenaean style proper, and hence must be assigned to a transitional period. This forms the first of our Argive classes.¹

The second class ('Linear Argive') is connected with the first by several links. It would seem that after the introduction of the geometric style into the Argolid, the Argive style, while keeping its linear principle intact, borrowed freely from its neighbor the various geometric motive, and that the two styles flourished, side by side, for at least a century and a half. Two shapes are characteristic of this second period: the lekythos, which has now acquired a long neck, with a cone-shaped body, and the two-handled bowl or 'skyphos.' While the belly of the vase is still adorned with the same series of parallel stripes, the rim of the skyphos, and the shoulder and neck of the lekythos are ornamented with friezes of purely geo-

¹ This classification and exposition of the Argive style differs in some respects from that recently advanced by Dr. Waldstein (*Am. Journ. of Arch.* 1900, p. 71). While agreeing with him thoroughly as to the 'linear' principle he advocates, I have preferred to abide by my own classification which was made in Athens four years ago. This point will be discussed more thoroughly in the forthcoming publication of the Heraeum vase-fragments.

metric motives, meanders, squares, lozenges, etc. Ray patterns are also freely used around the bases of the lekythi. Some of the earliest types show the later Mycenaean motives, pothooks, zigzags, *swastikas*, etc. This second period was extremely common at the Heraeum, and is the usual type found at Syracuse.¹ The clay at this time, seems to have an individuality of its own, and is of a finer and clearer variety than the geometric. It is generally of a reddish or greenish gray tint, and is similar in many ways to that used in Corinthian vases, though enough technical differences exist to prevent the two being confused.

With the third class ('Oriental Argive') the geometric influence ceases. The rise of the Oriental influence in the Argolid can only be responsible for this. That influence, which became such a factor in the art of the seventh century in Greece, found in the Argive style a suitable type with which to ally itself, and, being stylistically, diametrically opposed to the whole geometric system, finally drove it to the wall. Not that such a change took place immediately; we can see by later specimens of the previous class that the introduction of Oriental motives was slow, and, for a while, geometric and Oriental motives were extensively employed on the same vase. But gradually geometric themes are displaced, and the human or animal figure, with its attendant mass of extraneous ornament, usurps the field entirely. It is to this class that the three lekythi of this article belong.

Though small lekythi, such as ours, are among the most characteristic vases of the style, they are not the only types. Larger vases, such as skyphoi, oinochoai, etc., were found both at the Heraeum and at Aegina.² At the same time, the lekythos is the favorite shape and shows better the transition between the linear and Oriental periods of the Argive style. With the rise of the Oriental influence, the linear principle, though not

¹ Orsi, *Notizie degli Scavi* (Acad. dei Lincei), 1893, pp. 451 ff.; 1895, pp. 109 ff. Cf. also *J.H.S.* 1890, p. 171.

² Pallat, *Ath. Mitth.* 1897, p. 265.

abandoned, is relegated to a secondary position, and the frieze becomes the chief feature. Ornaments in field as a wealth of decoration, with a free use of the incised line, are now used, and the application of different shades of paint—maroon, violet, red, and yellow—becomes a common and characteristic feature.

Our analysis of the Argive style would hardly be complete without some discussion as to its relation to its successor, the Corinthian style, since such I assume the latter to be. This view, as well as those just given, is entirely opposed to those expressed by Couve¹ in the latest discussion of the subject, who denies any connection between the two, and sees in the Argive style only an offshoot of the Dipylon: “Je crois donc qu’on peut affirmer l’entière indépendance des deux groupes proto-corinthien et corinthien . . . il serait facile de montrer que la style proto-corinthien n’est pas autre chose qu’une dégénérescence du style géométrique d’Athènes. . . . Comme les vases proto-attiques, comme ceux du groupe de Phalère, comme les vases géométriques d’Italie, les vases proto-corinthiens représentent, par les caractères de leur décoration, les derniers efforts du style géométrique” (p. 220). I cannot believe that, had the Heraeum material been accessible to M. Couve, he would have expressed any such opinion, in favor of which the Heraeum, at least, certainly furnishes no evidence. It seems to me far more probable that the Argive style rather influenced the Phaleron types than *vice versa*; however, a discussion on this point is rather beyond the scope of this article. But I believe that M. Couve is certainly wrong in declaring that no connection exists between the Argive and Corinthian styles. Such a connection seems to me to be one of the few positive facts we can gather from the Heraeum, as both styles are found there, the Corinthian in far smaller quantities.

It is quite possible that at the beginning of the seventh century, when the Oriental influence began to make itself felt in Greece, it should have extended through Corinth, as well as

¹ *Revue Archéologique*, 1898, p. 213.

the Argolid, in which case both styles would be contemporaneous. But the weakness of the claims of Corinth as the originator of the Oriental Argive, setting the example through her own peculiar fabric, lies in the fact that we have no proof that an independent ceramic industry existed in Corinth before the beginning of the seventh century. Mycenaean and geometric vases are found there too rarely, and the probabilities are that such vases were imported from the Argolid or Attica. But it is absolutely certain that from the Mycenaean times downward, the Argolid was a very flourishing centre for the manufacture of vases, and it is far more likely that a given influence entering at the same time in two different places should make itself more felt in the place having a style already established. If the Oriental period of the Argive style and the early Corinthian be compared, it may be easily seen that the superiority of the former does not lie in the fact that it is stylistically more advanced (which would be the case were the Oriental Argive directly influenced by the Corinthian), but in the new influence adopted by skilful potters to a style in the manufacture of which they were thoroughly at home.¹ If then Corinth, under the pressure of the new influence, created a type of her own, it is more than probable that she should borrow it from her neighbor, Argos, and then mould it to her own devices. If the sequence of the Oriental Argive and the earlier classes is plain at the Heraeum, equally so is the sequence of the Corinthian and the Oriental Argive. A large number of fragments was found which possess the characteristics of both styles clearly marked, until finally the linear feature of the Argive style was completely lost, and the flamboyancy of the Corinthian rules the field.

The class to which our three lekythi belong is now well represented. Couve enumerates nineteen, giving those only on

¹ Boehlau (*Aus Ionischen und Italischen Necropolen*, p. 113 ff.) objects to the connection between the Argive and the Corinthian styles on the ground of the inferiority of the Corinthian technique, and seems disposed to regard the Oriental Argive as a Corinthian product. This objection, it seems to me, is answered by what was said above.

which the human figure or a *genre* scene is represented. To this class belong all those lekythi on which a frieze of animals is found, of more or less careful technique. It must be admitted that lekythi of this description found at the Heraeum were not remarkable for their subjects or technique, but the Oriental Argive class was well represented by other shapes, skyphoi, pyxides, etc. In view of the time of the decadence of the geometric style and the rise of the Corinthian, we may assign to this period of the Argive style a date somewhere in the neighborhood of the beginning of the seventh century.

Having roughly sketched the origin and development of the Argive style, we can now proceed to the study of the vases themselves. The subject of No. I, as we have said, is Bellerophon's fight with the Chimaera.

There are few subjects in Greek art more popular than this scene,¹ even from the earliest times. It is as old as Homer.² Whether Pegasus's share in the fight is recognized by Homer is doubtful, there being no direct reference to him, except that implied by the words *θεῶν τεράεσσι πιθήσας* (*Iliad*, VI, 183). Hesiod's *Theogony* (278 ff.) is the earliest direct literary evidence for the appearance of Pegasus. The Chimaera, however, is an integral part of the legend from the beginning, and a monster of triple form, according to the *Iliad* (VI, 181):

*πρόσθε λέων, ὄπισθεν δὲ δράκων, μέσση δὲ χίμαιρα,
δεινὸν ἀποπνέουσα πυρὸς μένος αἰθομένοιο.*

Hesiod's description is similar, save that he gives the monster three heads—a lion's, goat's, and serpent's. All the later literature is divided between these two conceptions.

We have here to deal only with the artistic treatment of the myth. The earliest conception of the Chimaera occurs on

¹ A discussion of this myth is rather beyond the scope of this article: cf. especially Rapp's article in Roscher's *Lexicon*, I, p. 757, and the article 'Chimaera' in the same volume, p. 893; see also Daremberg-Saglio, *Dict. des Ant. Grecques et Romaines*, I, p. 684 ('Bellerophon') and p. 1102 ('Chimaera'); Milchhoefer, *Anfänge der Kunst*, p. 81.

² *Iliad*, VI, 152–205.

the 'Island Stones,' and one of the earliest stones has the Chimaera on one side and the winged horse on the other, establishing, as Milchhoefer remarks (*op. cit.*, p. 81, fig. 52), a very early connection between the two.¹ It is difficult to decide just when the common type of the Chimaera, with the body and head of a lion, the head of a goat growing from the lion's back, and the tail in the form of a serpent, appears, since it is open to question whether on the 'Island Stones,' which show the lion's and goat's heads very plainly, we can recognize such a tail. As far as I know, no representation of Bellerophon or the Chimaera occurs on any vase of the Mycenaean and geometric periods. A situla from Daphne in the British Museum (B. 105; cf. *Jahrb.* 1895, p. 37, fig. 1) has Bellerophon and Pegasus on one side, and the Chimaera on the other, but it cannot be earlier than the sixth century, while the terracotta relief from Melos² and the Camirus plate³ are certainly of a later date than our lekythos, which gives us probably the earliest extant treatment of the myth in its complete form.

The sphinxes, lizard, etc., have no connection with the principal group; they are merely an instance of the *horror vacui*, which is such a distinctive feature of the Corinthian style, due to the Oriental influence, and are used here purely for decorative purposes, not as mythological accessories. A bearded Bellerophon, as he is here, is a marked variation from the usual type, which represents him as a beardless youth, but as it was the favorite custom of archaic art to represent their gods and heroes as bearded, comment is unnecessary. The artist of our lekythos deserves credit for one very neat touch, since, in order to give the appearance of flying, he has represented Pegasus with all four feet in the air. This deserves notice, for the common representation of flying all through

¹ This connection became a favorite one in Corinthian coins of the fifth century, which have Bellerophon mounted on Pegasus on the obverse, and the Chimaera on the reverse. Pegasus alone is often found on the reverse of Corinthian coins, as is the Chimaera on the reverse of coins of Libyon.

² Müller-Wieseler, *D. A. K.* I, 52.

³ Darenberg-Saglio, *Dict.* I, p. 1103, fig. 1365.

this period, never reaches such a pitch of realism; all flying figures are portrayed with one foot, if not both, on the ground, in the usual 'flying and running' schema. It may be remembered that on one of the Vaphio cups (Εφημ. Ἀρχ., 1888-89, pl. x, no. 1) the idea of a rapid rush is well expressed by one of the bulls, which has all four feet clear of the ground. There, however, the idea of motion, not flying, was the artist's object, while here the artist has tried to represent Pegasus hovering in the air and just about to alight.

The Chimaera is the conventional type, and from the red tongue with its curious forked shape, we may perhaps assume that the artist was trying to justify the epithet of *δεινὸν ἀποπνέουσα πυρὸς μένος*. The snake's head at the tip of the tail is very delicately drawn. The scene as a whole is treated with a broader spirit of realism than was to have been expected from this period. As a rule, the commonest type of the battle represents the Chimaera below, speared by Bellerophon from above (e.g. the Melos terracotta; cf. also *Mon. d. Inst.*, II, 50; IX, 52¹), very much in the fashion of St. George and the dragon, and agrees better with the description of Apollodorus (II, 3, 2) that Bellerophon, lifted by Pegasus high in the air, slew the monster from his lofty perch, than does our lekythos, where a close combat seems inevitable.

Turning to the lower frieze, we find a subject extremely popular in vase-painting during the archaic period,—the chase of a hare by dogs. Few subjects adapt themselves better to a narrow frieze than this, where the action runs in long horizontal lines, with no perpendicular lines to break the continuity. Being thus decidedly linear in its feeling, it was eminently suited to Argive style. At first it occupies the chief frieze of lekythi of the third class, but after the tendency to portray some definite scene on a vase had become widespread, we find it relegated to a secondary position as a purely decorative feature. This motive has been carefully analyzed

¹ For a collection of the various monuments relating to the scene, see Fischer, *Bellerophon*, Leipsic, 1851, pp. 66-80.

by Loeschke,¹ who traces it back to the Hesiodic shield of Herakles, through the influence of metal work.

No. II seems more similar to No. I than No. III, though many points of difference exist between them. We may regard it as the last of the three chronologically, since the style is more closely allied to the Corinthian type proper. The lack of ornaments in field is remarkable. At first sight the most plausible interpretation of the scene is Bellerophon and the Chimaera over again, but against such an interpretation difficulties present themselves at once. If the warrior be Bellerophon, Pegasus, the *sine qua non* of the contest, is wanting; and if the monster be the Chimaera, it has a human head instead of a goat's, and no serpent's tail. Moreover, no instance of Bellerophon's fight against the Chimaera, without Pegasus, can be found. The human head in the lion's back may be paralleled by a plate from Praeneste,² where we have several plastic figures of lions with human heads growing from their backs. But though several instances of the Bellerophon myth can be found on Etruscan mirrors, the Praeneste plate, which is certainly not Phoenician, has no connection with the legend.

Of the lekythi in Couve's list, No. 14 seems to bear a strong resemblance to No. II, but such resemblance is of purely negative value. The two sphinxes there portrayed have nothing whatever to do with the warrior; were he attacking a sphinx, we should have a close analogy at once. It must be remembered that during the Oriental period in Greek art, especially in vase-painting, there was a great fondness for portraying monsters or animals with attributes entirely foreign to their natures, as gryphons, sirens, or birds and beasts with human heads. On Corinthian vases,³ we find these fantastic creatures intermingled with human figures which have no more significance than the monsters themselves. No. 14 is a good example of this.

¹ *Arch. Zeit.* 1881, p. 29.

² *Mon. d. Inst.* X, pl. 31, 1, 1 b.

³ Cf. Wilisch, *Altkorinthische Thonindustrie*, p. 44.

The winged demon is not a new feature, and occurs, in fact, on No. 5, while the panther is one of the commonest motives on Corinthian vases. Neither of these figures, as we have seen, has any relation with the central group. It may, of course, be questioned whether the artist did not have some idea of the Bellerophon myth, distorted, perhaps, in his mind, but such is probably not the case. Instances of combats between two men, or men and animals, are so common on vases of this period that we can only recognize here a simple battle between a man and a lion, with the addition to the latter of a human head, due to that spirit of fantasy which is so characteristic of Greek art at this period.

No. III is by far the most interesting of our lekythi, but the most obscure, since it presents three problems, of which no exact solution seems possible : first, the proper arrangement of the group ; second, the identification of the two male figures ; and, lastly, the interpretation of the object on which the birds are perched.

The centaur occupies the central position in the front of the lekythos, while the running figure with the sword falls almost directly beneath the handle, so that the chief interest lies in the centaur and his opponent. That some definite mythological scene is here presented is too evident to be disputed, so that the running figure cannot be considered as an accessory, but must be part of the action. Two explanations are possible : either the centaur is being attacked in front and rear by his opponents, or else he is pursuing the running figure, and is checked by the other. The latter explanation seems the more probable since the curious object with the birds lies *between* the running figure and the centaur. It is obvious that if the former scheme had been intended, this object, which is probably a mere ornament in field having no connection with the scene, would have been placed below the handle, entirely out of the action. Clearly, then, a pursuit of some sort is represented.

The presence of the centaur confines the meaning still further, since the scenes on vases which contain him, although

numerous, are generally variations of the same myth, Herakles's Centauromachia. To recognize the centaur's opponent as Herakles, seems the only possible solution. At first sight he lacks the conventional attributes, the lion skin, club or bow, but these are not always found with representations of Herakles. The sword, as an attribute of Herakles, occurs quite frequently on vase-paintings (cf. Furtwängler in Roscher's *Lexicon*, I, 2140). The variation consists here in the sword being fastened at the side, not swung in the hand. Two scenes, however, make the identification certain: first, an Attic black-figured amphora of the earliest type in Athens (*Ant. Denk.* I, 57), where Herakles, bearded, clad in a short chiton, and armed only with a sword, is fighting the centaur Nessus; and second, a Corinthian skyphos, in the possession of Rayet (*J.H.S.*, I, 1; also in Rayet and Collignon, *Hist. de la Céram. grec.*, p. 55, fig. 31), on which Herakles, entirely naked, with a branch in each hand, puts the centaurs to flight. The attitude of Herakles on the latter vase is almost identical with his attitude on our lekythos. The centaurs on the Rayet skyphos hold branches in their hands which end in roots, and Herakles also seems to hold the root of a tree in his left; in view of this, there can be no reasonable doubt that the object in the left hand of Herakles on our lekythos, is no thunderbolt or axe, but simply the large root of some tree.

Behind Herakles is a figure which, from the absence of a beard, is clearly a youth. To identify this figure as Herakles's comrade and helper, Iolaos, is a possibility. He is found on a black-figured lekythos in Munich (No. 772), where Herakles is pursuing the centaur, Eurytion, and on a vase in Athens (No. 403; see Roscher's *Lexicon*, II, 288 *d*), as a companion of the combat on Mt. Pholoë. This combat would seem to be the one intended here, since the absence of a female figure shows clearly that no treatment of the Nessus¹ or Eurytion contests

¹ Only Herakles and Nessus are represented on the Nessus vase in Athens, but, as the other half of the vase is entirely restored in plaster, it is quite possible that a female figure was represented there.

was intended. Less probable would be to recognize a Lapith combat with the two warriors, as Theseus and Perithoüs. It must be admitted that the exact identification of the scene is doubtful, but that Herakles, at least, is here represented, seems to me positively certain.

I can offer no satisfactory explanation for the object on which the birds are perched, having been unable, after a careful search, to find any object which resembles it in any way. On the Rayet skyphos, two objects are associated with Herakles's Centauiromachia—the cask of Pholos and the altar from which the brands were taken. Neither identification suits the case here. The presence of the birds seems to warrant our seeing in it a mere ornament in field. The two flying eagles evidently serve that purpose, and the birds are perched on it with perhaps a similar spirit to that shown in the figures of cocks perched on the columns of Panathenaic amphoras. It seems fairly certain, however, that the object, whatever it may be, has no connection with the action of the vase.

A few technical points are worthy of notice. The frieze on the shoulder is of slightly better execution than the main frieze, but presents no striking features. The centaur is represented in the older form with human forelegs,¹ and in similar fashion to the gold *hormus* from Camirus,² where a complete human figure is represented, to which the body and legs of a horse have been added, with no attempt at a symmetrical juncture. The hair on all the figures is treated in the same arrangement of ribbed lines found on the archaic Apollo figures (especially the Apollo from Tenea). The drawing and execution are poor, and the whole style rather primitive in character. We may safely regard this *lekythos* as the oldest of the three.

The discussion of the general scheme of ornamentation has been reserved for the last, it being of less importance than the subject-matter of the *lekythi* themselves. The distinctive ornament of the three is the plait pattern, or *guilloche*, used as the handle decoration on all, and below the hare-hunt of No. I.

¹ Cf. Roscher's *Lexicon*, II, 1076.

² Salzmann, *Nécropole de Camirus*, pl. i.

That the motive is derived from metal work, more probably from shields, is fairly certain. In passing, it is worth while to call attention to a suggestion of Loeschcke's (*Arch. Zeit.*, 1883, p. 59), that we may recognize in the words *περὶ δ' ἄντυγα βάλλε φαεινὴν τρίπλακα μαρμαρέην* (*Iliad*, XVIII, 479), a triple woven rim of this description. A double plait may be found on Mycenaean vases,¹ and I have noted several instances of this ornament on Mycenaean fragments from the Heraeum. The rays, waves, meanders, etc., have no especial interest; they are all characteristic ornaments of the Mycenaean period.

The palmette of No. I resembles strongly that of Couve's No. 4, the Berlin lekythos, and it is evident that we have in this period one of the earliest essays in the use of the motive before it attained its full development. Different is the treatment of the palmette on No. II, which is very similar to the capital of an Ionic column (cf. Boehlau, *op. cit.* p. 110, fig. 61). The scroll between the two sphinxes is curious, and suggests the *caduceus* of Hermes; it is, however, a purely conventional motive, elaborated perhaps from a Mycenaean flower pattern (cf. *Myk. Vas.*, pl. xxxi, 293). The numerous other designs, *swastikas*, four-barred sigmas, pothooks, rosettes, etc., are no new feature; most of them are relics of the Mycenaean style, and almost all may be found on Melian² or Rhodian vases.

We have seen that the Argive style is older than has been supposed heretofore, dating certainly from Mycenaean times. That its manufacture did not continue after the seventh century seems a reasonable supposition, in view of the fact that no fragments of this style were found at Naucratis (cf. Smith, *J.H.S.*, 1890, p. 176). Certain it is, however, that from the beginning of the eighth century it played a most important part in the Argolid, and during the seventh century became one of the most popular styles in Greece and her various colonies.

JOSEPH CLARK HOPPIN.

¹ Furtwängler and Loeschcke, *Mykenische Vasen*, pl. xxxiv, 338.

² For the scrolls beneath the main frieze of No. II, cf. Conze, *Melische Vasen*, pl. v.

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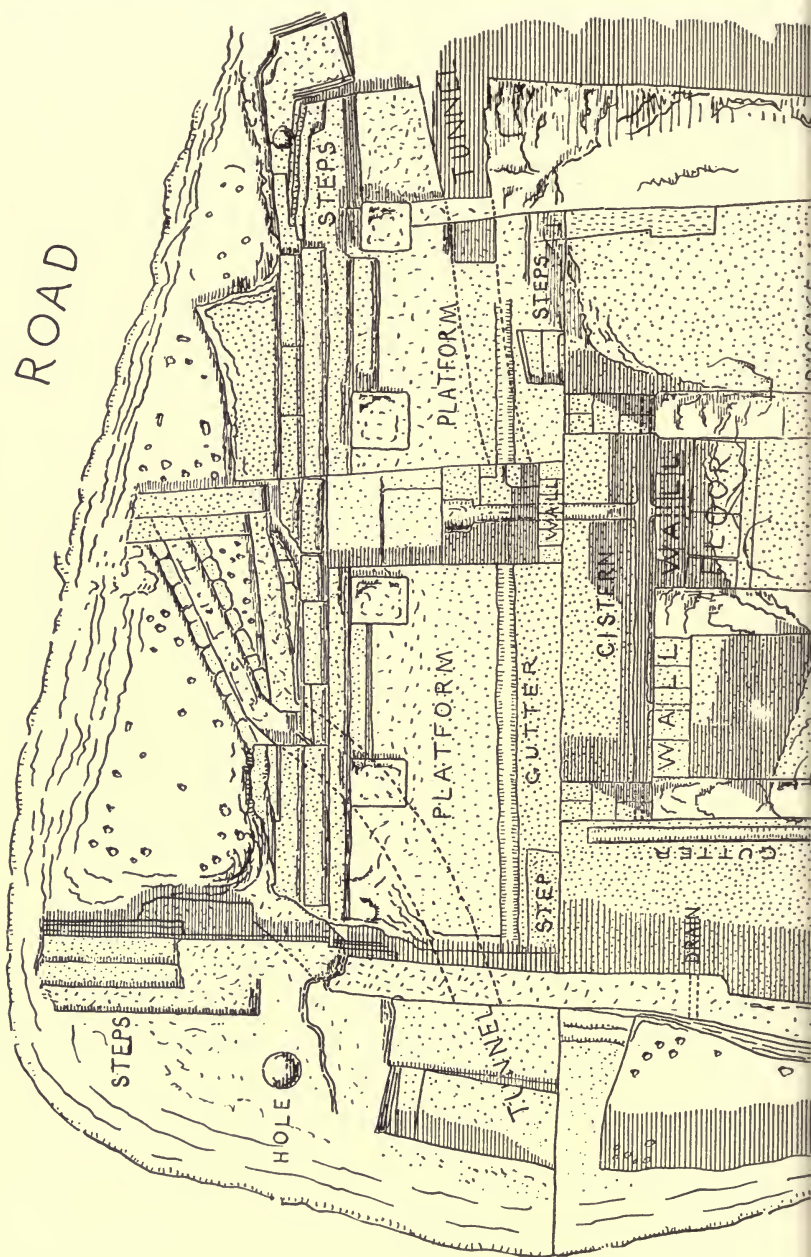
THE FOUNTAIN OF GLAUCE AT CORINTH

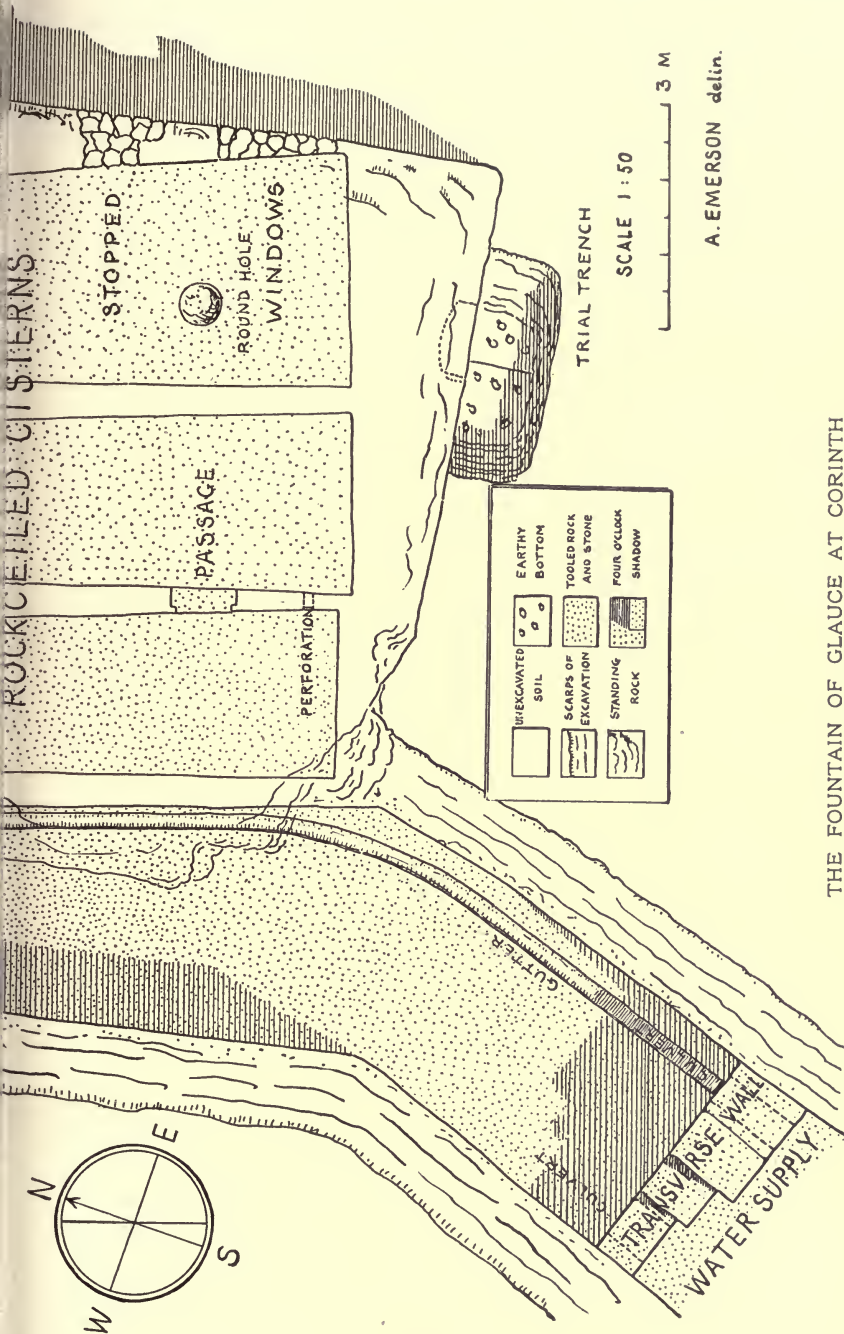
[PLATE VII]

ON April 12, shortly after the opening of the excavations for the season of 1899, we commenced clearing out the three openings in the huge block of native rock which, at a distance of about 80 m. west from the well-known ruin of the Old Temple, rose out of the ground about 3 m. This block, called by the peasants by its Turkish name of Boudroumi ('prison'), had never, so far as I know, received any explanation except that it was sometimes regarded as what was left over after the building-stones for the temple near at hand had been quarried around it. The significance of the chambers hewn out in it seems never to have been felt.

During the whole course of our work at Corinth, we have followed the plan of making tentative excavations along with our main undertaking, in the hope of finding other important centres than that in which we were at the time engaged. In attacking this cube of rock, however, we were not groping entirely in the dark (Fig. 1). In the previous campaign we had found Pirene, and so knew approximately the position of the Agora. We saw that a street running toward Sicyon from any now possible position of the Agora, and passing the theatre discovered by us in our first campaign (of 1896), must leave the temple ruin on its right; and so, by a simple application of the words of Pausanias,¹ 'as you go out from the Agora by another street, the one toward Sicyon, you see on the right of the street a temple and bronze statue of Apollo,' this ruin was shown to

¹ Paus. II, 3, 6.





THE FOUNTAIN OF GLAUCE AT CORINTH

be the long-looked-for temple of Apollo. But inasmuch as we had not yet actually *found* the Agora, our whole topographical chain needed strengthening; and one of the monuments mentioned by Pausanias, just beyond the temple of Apollo on this street leading toward Sicyon, would be a most welcome additional link. Pausanias here mentions a group of three monuments in close connection—the fountain of Glauce, the Odeum, and the tomb of Medea's children. Since immediately after this group comes another in which one member is the theatre,

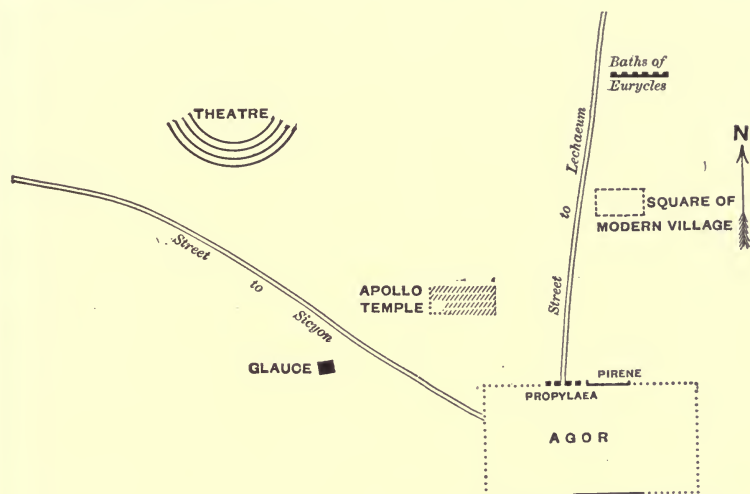


FIGURE 1. — SKETCH-PLAN OF SITES IDENTIFIED BY THE AMERICAN EXCAVATIONS.

the discovery of one of the three monuments enumerated, by giving us a line eastward from the theatre, would not only corroborate our name for the temple, but would also enable us to locate the Agora with certainty and precision at the intersection of the street from Sicyon with that which led up from Lechaëum, past Pirene. We should thus have achieved, in a roundabout way, a result of the first importance, even if we had ceased to labor directly, proceeding forwards from Pirene, for the uncovering of the Agora itself. This latter task, however, we did not omit, but regarded it as our chief undertak-

ing ; and our fortunate result was the speedy discovery of the Propylaea through which the street to Lechaeum passed, and through which we also passed into the Agora itself. But not on account of the success of our main undertaking should the result of the *πάρεργον* be slightly treated.

From what we already knew of the topography of the region, we started with the conjecture that we had to do either with Glauce, or with the tomb of Medea's children. The other monument of the group, the Odeum, it, of course, could not be.¹ But which of the two others it was, we were unable to ascertain until toward the close of our work. It is true that the presumption became ever stronger that it was Glauce. The three chambers, when cleared out one after another, beginning at the eastern one, to their floors of living rock at a depth of 6 m. from their massive rock-cut ceilings, showed well-preserved stucco on the lower parts of their walls ; in front of them we found several water conduits, albeit mostly of a later date, and a large cistern, which at first puzzled us a good deal, and which I will explain presently. But the whole system was as dry as a bone, and we still lacked the conduit through which water had been delivered into it, and without this, we had no absolute proof that we were dealing with a fountain house.

A trench sunk along the back of the first or easternmost chamber showed that an irregular hole which appeared on the inside did not come through. We next dug a large trench about 20 m. to the rear, in the attempt to find a great subterranean aqueduct, which one peasant, older and bolder than the rest, averred that he had seen there when he was a boy. In this

¹ It is impossible to resist the impression that the writer of the article "Fons" in Smith, *Dict. of Antiq.* (p. 870), believed that the Odeum was built over Glauce. In speaking of the fountains of Corinth, he says: "Over one was a statue of Bellerophon and Pegasus, with the water flowing out of one of the horse's hoofs ; over another, that of Glauce, was the Odeum." We, guided by the use of *ὑπέρ* in the phrases *ὑπὲρ δὲ τὴν ἀγορὰν ἔστιν Ὀκταβλὰς ναός* (Paus. II, 3, 1) and *ὑπὲρ δὲ τὸ θέατρον ἔστιν ἱερὸν Διὸς Καπετωλίου* (II, 4, 5), supposed *ὑπέρ* in the present case also to indicate a position 'somewhat higher up,' and accordingly made an attempt, in rising ground to the south, to identify the Odeum also, but without success.

trench also we failed to find our proof; but it subsequently appeared that we had come within 2 m. of the object of our search.

As we were operating on ground not expropriated by the government, and had to make our peace with the proprietor as we proceeded, we were somewhat hampered in our movements. But we next pushed westward from what had appeared to be the end of the system in that direction, and found a fourth compartment without a ceiling and without a back wall, which prolonged itself in the rear beyond the others, with a turn somewhat west of south, until at a distance of 6 m. from the southwest corner of the great cube it reached a transverse wall in which were two large orifices, through which water was once delivered from the direction of Acro-Corinth, the ultimate source of all the water of the region. We did not proceed farther;¹ we had reached our goal; Glauce was found, and another link was added to a chain already long enough and strong enough to constitute a topography of Corinth.

With the aid of several photographs, and of an excellent ground-plan, prepared by Professor Alfred Emerson (PLATE VII), an adequate idea of the situation and arrangement of the fountain house may be conveyed. Figure 2 shows the rock cube as it looked before the excavation, seen through the columns of the temple of Apollo. Figure 3 gives a view of the façade, now considerably broken away at its west end (toward the right), with the comparatively late wall closing the second and third chambers. Figure 4 gives a view from the rear, taken from a point near the wall, with the apertures through which the water was seen to have entered into the system, and looking toward the southwest corner of the whole. The curve in the fourth compartment without a ceiling is also here seen, as well as the opening like a door, through which the water, after

¹ At some future time we must trace the channel back farther. Since the ground rises quite perceptibly a little farther back, we shall probably find it coming up to a face of rock into which it will go. It is not impossible that we should trace it back to the fountain now issuing from the foot of Acro-Corinth, beside the usual road of ascent.

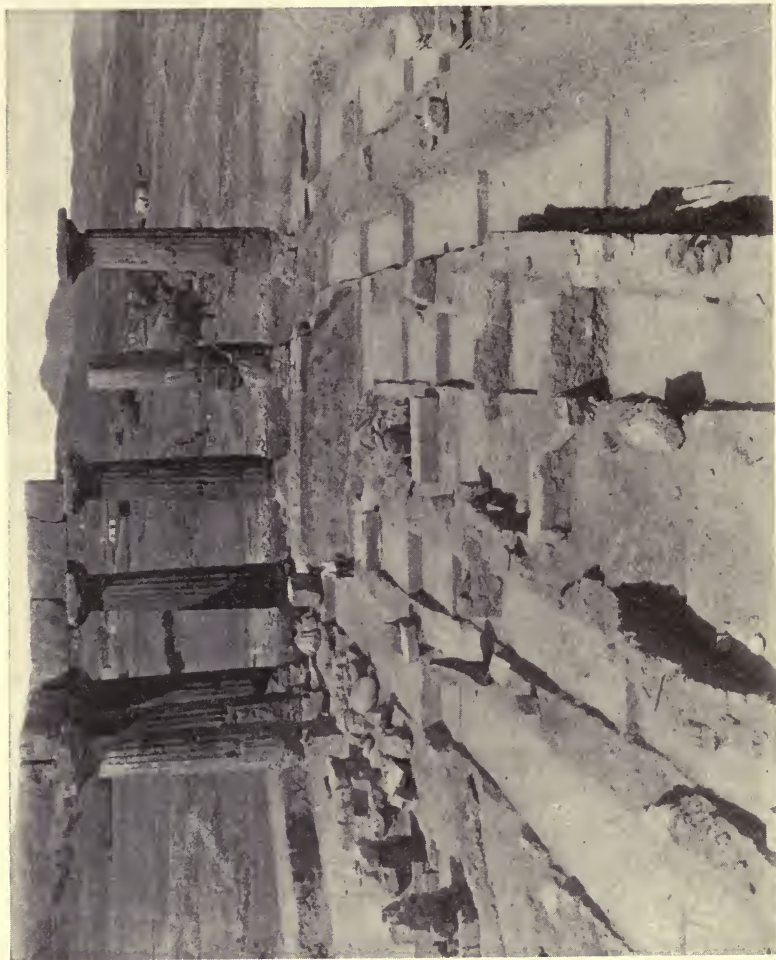


FIGURE 2.—GLAUCE: SEEN TO THE WEST, BETWEEN THE COLUMNS OF THE TEMPLE OF APOLLO.

flowing through this compartment, flowed into the chamber to the east of it, from which, through similar openings, it flowed into the other two.¹

My first thought was that the three chambers which had a rock ceiling constituted the fountain house, and that the fourth compartment was simply a broad channel for the introduction of the water. But subsequent examination and reflection convinced me that this also must be counted as a part of the fountain house itself. Three considerations lead to this conviction. In the first place, one sees that the rock ceiling does not stop with the third chamber, but projects westward beyond it in an irregular manner. This suggests that it once extended farther, and made a ceiling for the fourth compartment also. In the second place, the flight of four rock-hewn steps in front of the façade does not stop at the end of the third chamber, but proceeds on to the end of this fourth chamber, as we may now call it. Thirdly, the west wall of this chamber, now broken down to a height only a little above the top of the flight of steps, projected forward flush with the line of stumps of three pillars, which once stood in front of the division walls of the four chambers. This we found by clearing away some stones and mortar above it at the end of November, 1899.² As the east wall of the first chamber came forward in the same way, they make a whole of all that they enclose. Accordingly, we may restore a façade of three pillars between two antae—quite an effective front of 10.25 m. in length. The elevation (Fig. 5), drawn by Mr. Benjamin Powell, shows how much more impressive this façade was than that of Strabo's Pirene on Acro-Corinth, which had but one column between two antae.³

¹ These apertures are so placed that the water must circulate through a good part of each chamber before it can leave it by the next aperture,—an arrangement which might serve as a corroboration for the view of Defrasse and Lechat in their *Épidaure*, that the puzzling foundation walls at the centre of the famous Tholos of Polyclitus show it to have been a fountain house.

² This was after Professor Emerson had completed his drawing.

³ Given by Götting in *Arch. Zeit.* 1844, p. 330, and often reproduced.



FIGURE 2. GRACE: FRONT VIEW AS EXCAVATED.

That there was never a fifth chamber still farther to the west is made clear by the fact that the rock-cut steps did not proceed any farther in that direction, but turned a right angle to the north, a rock platform being left at their top; and also by an evident symmetry in the system as we have it, the two outside chambers being much broader than the other two, which also correspond. The most convincing proof, however, is the lack of any aperture for directing water into any chamber west of the fourth. Still, to make the case more certain, we dug far enough out to find the western wall to any chamber that could have existed here, and no such appeared, nor could it have existed unless it was at least three feet wider than any of the others.

The chambers are all similar in shape, broadening from front to rear, until their dividing walls at the rear are very thin, in some places only about four inches thick. The first one is hewn at its rear end so far to the east that it breaks through the cube toward the top, while at the front on the same side there is a great mass of rock left. The chamber system appears in another point also to have been cut into the cube unsymmetrically, in that a great mass of rock is left at the rear of the eastern chambers, which becomes gradually thinner toward the west. In general, one can see that considerations of strength were here controlling. At the rear, where the thick wall of nearly a metre of living rock was left standing, there was no danger of the massive ceiling falling in; but at the front, where it had no support except the dividing walls, it was necessary that these should be strong. This was particularly true at the eastern end, where the ceiling was 2 m. thick against 1.30 m. over the third chamber. This consideration also accounts for the rear wall being thick at the east and growing thinner toward the west, as the ceiling diminished in thickness. The breaking down of the ceiling over the front part of the two middle chambers, and that of the western chamber entirely, shows that the precaution, so far from being uncalled for, was not carried far enough. In the stumps of



FIGURE 4. — GLAUCE: FROM THE SOUTHWEST CORNER.

three rock-hewn pillars in front of the division walls we read the story of the caving in of the northeastern corner of the ceiling. The desire to make an ornamental front curtailed the effort in the direction of strength; and the three pillars were made by hewing away the rock wall behind them, and thus making a sort of porch with the rock ceiling for its cover. When this caved in, probably on the occurrence of some earthquake, — and these were never lacking in this region, — it lurched over to the northwest, carrying the pillars and the north ends of the division walls, as well as the whole top of the western wall, along with it.

That this accident took place while water was still flowing here is shown by the change subsequently made in the two middle chambers, which, in consequence of the fall, were curtailed at the front, and, instead of running forward to the platform of rock, were bounded in this direction by walls built 1.50 m. back of this platform, and approximately under the edge of what remained of their ceiling. The space between this new front and the platform was then converted into a cistern, which was supplied with water through two holes quite at the bottom of the wall, and which continued long enough in use to receive a second coating of stucco.¹ What was done with the remains of the fourth chamber at this time is matter for conjecture. Perhaps it was covered over with slabs, and made, like its extension to the rear, water-tight by means of stucco. At one time at least it appears likely that this channel in the rear was made so water-tight that water rose in the chambers considerably higher than the top of the platform (which is 2.10 m. above the bottom of the east chamber), if we may trust the evidence of the stucco on the walls. We must then posit a water-tight parapet on the platform, closing the chambers to a height of a metre or more. Traces of the bedding of this parapet may perhaps be seen in

¹ That water continued to flow around the front of the façade until the present century is rendered likely by some very modern-looking tile pipes found there at a depth of about a metre below the surface.

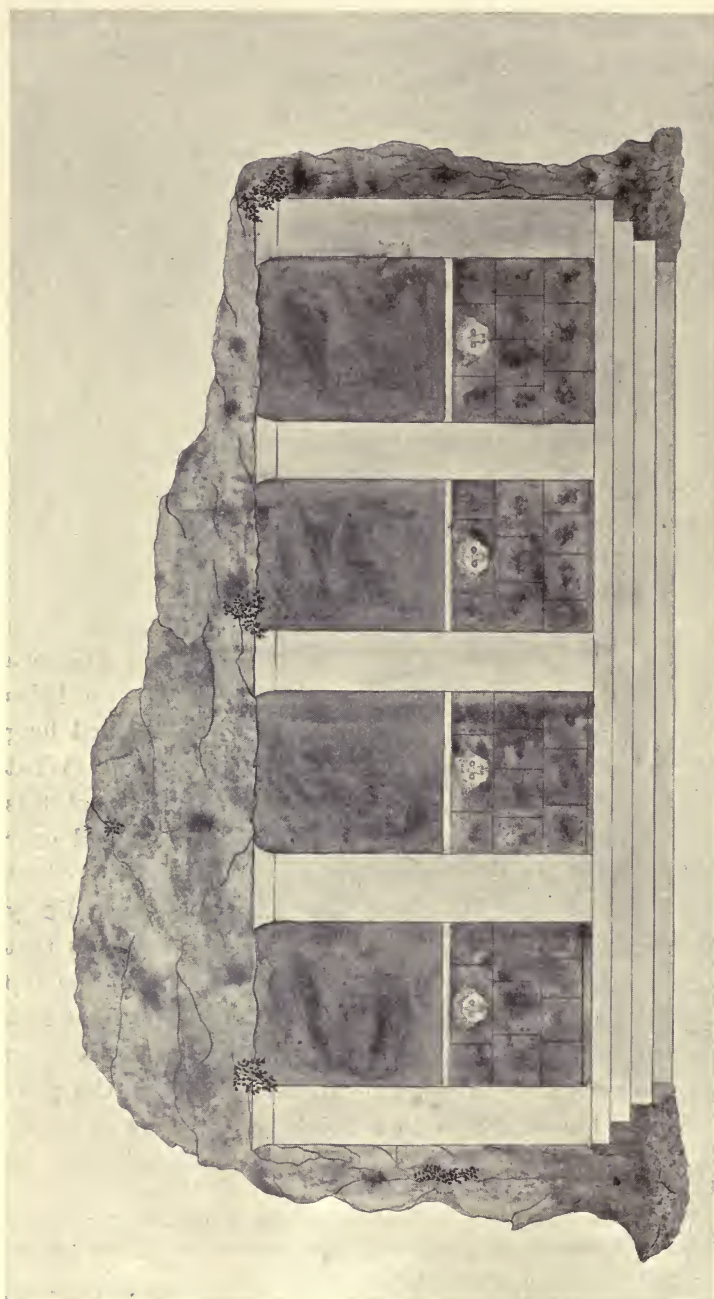


FIGURE 5. — FAÇADE OF GLAUCE: RESTORED.

the cutting marked on the plan as a "gutter." In this parapet we may suppose openings to have been made, to which the usual lion's-head spouts were affixed for filling pitchers. Two such lion's heads were found in the cistern above described, and are reproduced in Fig. 5. In all probability there were once four of them, giving a Tetrakrounos. To exclude doubts as to the likelihood of the Greeks constructing a channel sufficiently water-tight to force water up to so high a level, we have the fact that the joints in the wall between the cistern and the middle chambers are so well made that not until after a good deal of "picking away of the hard stucco could we convince ourselves that it was not a wall of native rock. The corner joints especially, having a little filling of this hardest kind of cement, seemed hewn out of the solid rock.¹

At some time when the water supply became less abundant, perhaps in the days when Hadrian felt the need of bringing more water from Stymphalus, it apparently became necessary to deliver the water at a lower level. An approach was then cut through the steps and the whole rock platform to the cistern, and steps going up and then down were laid, to enable women to bring their pitchers to the lower level.² A rock-cut passage from the east seems to be another approach to the same point.³ But we are here on debatable ground. A narrow gutter running the whole length of the floor of the fourth chamber, also furnishes some difficulty. Perhaps when the water was shut

¹ That this forcing of water to a height was practised by the Greeks is the opinion of E. Curtius, *Gesammelte Abhandlungen (Die Städtischen Wasserbauten der Hellenen)*, Vol. I, p. 139. Reprinted from *Arch. Zeit.* 1847.

² The reason for not leaving the whole passage open is not clear. A discharge canal was laid out here, but that could have been simply covered with plaques. Another unsolved question is how the surplus water was carried off before this passage was cut. It may have to be conceded that the passage belonged to the original arrangement. But the difficulty of explaining the added steps remains, and I conceive the passage to be later than the first laying-out of the fountain.

³ It is at one point not high enough for a person to stand upright; but, as it clearly slopes toward the façade, it cannot have served as a discharge pipe. It is possible that the main overflow may have been at the southeast corner, high up, where the wall is broken through. At the west is a rock-cut channel under the steps, which may, in some way, have served for the discharge.

off with a view to cleaning the fountain house, one might have scrubbed the floors, in the last instance, into this little gutter.

That this fountain was unpretentious, depending for its effect upon its rugged massiveness, is almost certain. Possibly the Greek spirit would have demanded some sort of capital for the pillars. But that they were as modest as those of *Pirene* admits of little doubt (see above, p. 211). The whole was probably calculated to produce the effect of a series of natural grottos like those of *Pirene*, only much higher. In this case, more was left to nature than in the case of *Pirene*, where artificial cross walls were demanded for supports. Whether the Romans, when they came, had the boldness to attach to it, as they did to *Pirene*, their favorite marble revetment, may be doubted. The only traces of marble found near were the two lion's heads above mentioned, and as they were found so near the front of the fountain, the presumption is that they were attached in some way to the façade. They are of fine workmanship, comparable to the lion's heads from the *Tholos* at *Epidauros*, and are certainly from the older, Greek *Corinth*. The lion's heads on the half dozen cornice blocks found on the west slope of the valley, east of the temple of *Apollo*, are in sufficient contrast to ours to warrant calling those on the cornice blocks dead and ours alive. The former come from a time when the spirit was gone out of art, when artisans could reproduce the *Athenian Propylaea* at *Eleusis*, but could not put the Greek spirit into it. Our lion's heads cannot belong to this period, although they may not belong to the first arrangement of the fountain. They are Greek and not Roman.

As to this first arrangement, we have no literary evidence, since it is mentioned by *Pausanias* alone of all the ancient writers, and by him only in passing to the story of *Medea*. His explanation of the name, from the fact that *Jason's* new bride threw herself into it to escape the burnings of *Medea's* poison, could hardly be taken as substantial proof of its existence in very early times. But its general appearance, its simplicity, its massiveness, and its somewhat careless hewing,

convey the impression of great antiquity, and so would be in perfect keeping with the tradition which Pausanias notes. It also seems to have a natural consonance with the temple of Apollo near at hand, as if it belonged to it. Since this appears, from its style and from a reference to it in Herodotus (III, 52), to have been built in the times of Periander, if not before, we may very naturally think of Glauce as equipped at the same time and by the same builder, as the special fountain of the temple. When the stones for the temple were being quarried around it, the idea of saving a mass unquarried, for a fountain, would naturally be suggested, and we may conceive of temple and fountain as parts of one building scheme.

We thus have a most natural historical origin for the fountain: as Pisistratus at Athens, Polycrates at Samos, Theagenes at Megara, and tyrants generally, recognizing that an abundant supply of water was the one thing that pleased the people, laid out great water-works, so the clever Periander may be supposed to have thought to strengthen his hold on Corinth by furnishing Glauce at a crowded part of the city.

This was likely to be a favorite place of resort. A limited number could find cool shade on the platform, inside the columns, but even the steps, with their northern exposure, would be shaded a good deal of the day. But those who could not get near enough to see the deep, dark, cold water within, could at least enjoy the sight of the sparkling cold water gushing forth. The Odeum also was hard by.

That Glauce was an important and interesting object in itself will, I hope, have been shown by the foregoing description. But I feel that I should not have exhausted my subject, and might perhaps be regarded as derelict in duty toward a great enterprise, if I did not emphasize the importance of the conclusions which its discovery allows us to make in regard to the topography of Corinth. Professor von Wilamowitz-Moellendorff, in the *Deutsche Literaturzeitung* of May 6, 1899, in speaking of the discovery of Pirene, says: "Damit ist der Eckstein zur Topographie von Korinth gelegt." But now that

we have Glauce, we have not merely one corner-stone but six, if one may so speak without running out of the metaphor. We have Pirene, the Agora, the temple of Apollo, Glauce, the theatre, and the Baths of Eurycles. Without adding more, we may look back with some complacency on the days when the coryphaei were battling over what they were pleased to call the topography of Corinth.

Take, for example, the plan of Corinth as given in Kiepert, *Atlas von Hellas*, 1879, pl. vi, reproduced in the annexed cut (Fig. 6). It looks very strange in the light of our excavations. The Agora is put too far to the north, and Pirene is shoved out of the city into the space between the long walls, regardless of the fact that Pausanias mentions several monuments, and among them the Baths of Eurycles, between Pirene and the limits of the city. A derangement of the actual order is also seen to the west of the Agora. But Kiepert is only basing his plan upon the topographical conclusions of Curtius and Bursian; and back of them is Leake. The truth is that Leake went astray, and they all went astray after him. Curtius's admiration for Leake is well known, and Bursian hesitated to differ widely from Curtius, the great German authority on the Peloponnesus. It is not strange that the four went astray when not one landmark of ancient Corinth had been identified. Had the theatre been discovered, or had the temple ruin received its right name, it might have been different. But the wonder is that they erred *as* they did. Curtius, for instance, thought with Leake that the group of monuments mentioned by Pausanias as on the street toward Sicyon after the temple of Apollo, of which Glauce was one, were on the left of the street. But when he gives as his reason that they would then find a place where they could comfortably hug the slope of Acro-Corinth,¹ one opens one's eyes wide with wonder. Placing the temple of Apollo where he does, he would have the real slope of Acro-Corinth nearly a mile away from the road to Sicyon as he lays it out. To crown all, Bursian² takes issue

¹ *Peloponnesus*, II, 531.

² *Geogr. Griechenlands*, II, 16, note 2.

with Curtius, and puts the monuments in question on the *right* of the street, for the reason that "an der Südseite war

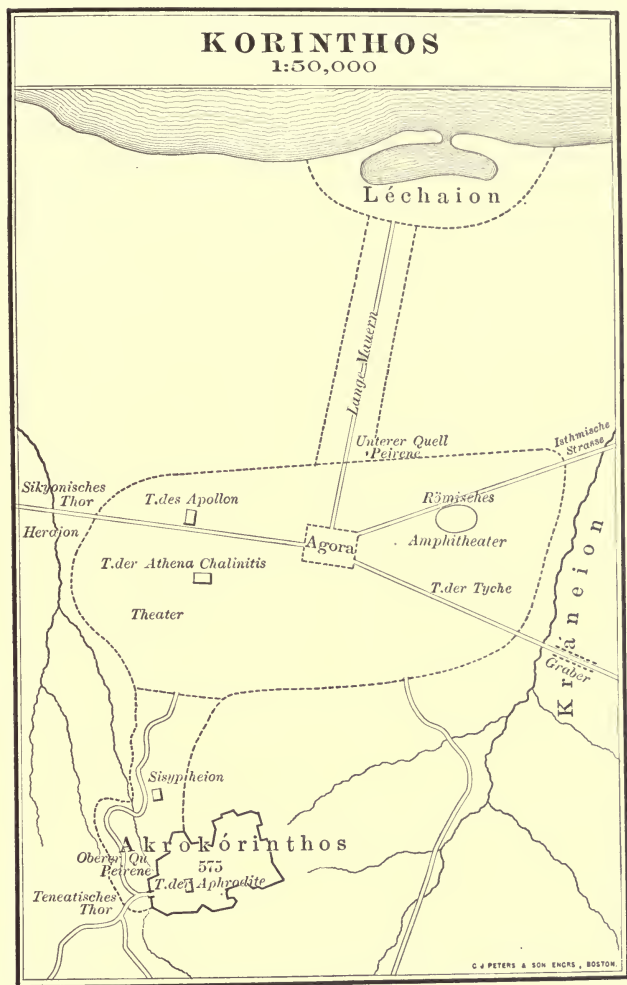


FIGURE 6.—KIEPERT'S PLAN OF CORINTH.

vermuthlich eben wegen des Fusses der Burg kein Raum für grössere Baulichkeiten." But we now know that all Corinth was there. How they could put Peirene, as they did, at the very lowest limit of the city, and the Agora near it, and then

run a street toward Sicyon past what they took to be the temple of Apollo, with any expectation of coming anywhere near to Acro-Corinth, is a mystery. It becomes amusing when Bursian complains of the "nicht allzuklare Schilderung des Pausanias."¹ Dörpfeld² and W. Gurlitt³ have the good sense to defend Pausanias from this imputation, the former admitting that the only difficulty in following him was that of finding a starting-point. We, having got the starting-point, find him a most clear, explicit, and trustworthy guide. It is almost strange that Curtius also did not complain of Pausanias's unclear description when he tried to make it fit the position which he gives, and which Kiepert faithfully follows, to the theatre, far up upon the slope of Acro-Corinth. Curtius's street to Sicyon would have to turn a right angle at his supposed temple of Apollo, and continue nearly a mile in that direction before it could reach the theatre and get on again in the direction of Sicyon, whereas Pausanias appears to be proceeding straight ahead, as we now know that he was doing.

The two great errors which ought now to be laid forever are, first, the misnaming of the well-known temple ruin and giving it the name of Athena Chalinitis, coupled with a perverse placing of the temple of Apollo, not farther east, as the description of Pausanias would demand, but farther north, on the strength of some architectural remains on the edge of

¹ *Geogr. Griechenlands*, II, 15.

² *Ath. Mitt.* XI, 305, "Beschreibung des Stadt besonders klar und übersichtlich."

³ *Ueber Pausanias*, p. 80. Gurlitt is probably in error only in regarding Roman Corinth as rather more regularly laid out than it actually was. He speaks of it as "dem regelmässig gebauten Korinth mit seinen vier grossen sich rechtwinklig durchschneidenden Hauptstrassen." Actually, the street to Lechaëum left the Agora approximately at right angles to its northern side, while the street to Sicyon surely went out on a bias to the western side, in order to pass between the temple of Apollo and Glauce; and after it got past the theatre must have followed the present road with something of a curve, in order to pass by Lerna, which we now see flowing about ten feet below the surface close to the present road. The course of this road from the Agora to the city wall is prescribed by the lay of the land, which has had a power to make streets and roads stay forever in the same place.

the bluff, the provenance of which is not clear, but which have proved an *ignis fatuus* to all the topographers,—even Dörpfeld, at the time of the preparation of his article already cited, not being able to resist the fascination of the idea of a temple of Apollo near at hand; second, the placing of Pirene at the very northern limit of the city with the baleful consequence of furnishing a support to this erroneous position of the temple of Apollo, an error started by Leake, and unsuspectingly followed by all the topographers down to Frazer in his exhaustive work on Pausanias, which appeared in the very year when Pirene was discovered. The correction of these errors is now easy, because the temple of Apollo and Pirene are fixed beyond controversy. Still, it is possible that the errors may have a long life, because they have been so long in possession of the field and have captured the handbooks; and because a correction always has hard work in overtaking an error that has gone out into all the world. It gives one an uneasy feeling about our so-called science of topography as applied to any unexcavated region when one sees that the topography of Corinth has been nothing but a structure of error piled upon error.

RUFUS B. RICHARDSON.

ATHENS,

November 30, 1899.

ARCHAEOLOGICAL NEWS¹

NOTES OF RECENT EXCAVATIONS AND DISCOVERIES ; OTHER NEWS

HAROLD N. FOWLER, *Editor*
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GENERAL AND MISCELLANEOUS

ARCHAEOLOGICAL WORK FOR THE UNIVERSITY OF CALIFORNIA. — President Wheeler has announced to the Regents of the University of California that experts have been engaged to make excavations and explorations in parts of the world rich with ancient relics. The expense will be borne by Mrs. Phœbe A. Hearst. In Egypt, Doctor George A. Reisner will have charge of the explorations. Doctor Uhle will pursue investigations in South America and Yucatan. California, New Mexico, and Mexico will be searched by Doctor Philip Mills Jones. Doctor Alfred Emerson, recently professor in the American School of Classical Studies at Athens, is to undertake the work in Greece and Etruria. The materials collected will be placed in the archaeological museum to be established at Berkeley. (*Biblia*, April, 1900.)

THE ARCHAEOLOGICAL SOCIETY OF MOSCOW. — In *R. Arch.* XXXVI, 1900, pp. 252-273, is a summary, by G. Katcheretz, of a history (in Russian, Moscow, 1890) of the Archaeological Society of Moscow from 1865 to 1890, with additions by the Countess Oubarov bringing the account down to 1899. A list of the numerous books and articles published by the society is given.

NECROLOGY. — **Paul Blanchet.** — The death is announced of M. Paul Blanchet, who wrote on the antiquities of Dauphiné, and formed a valuable collection of mediaeval objects. (*Athen.* June 30, 1900.)

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor FOWLER, Editor-in-charge, assisted by Miss MARY H. BUCKINGHAM, Professor HARRY E. BURTON, Professor JAMES C. EGBERT, JR., Professor ELMER T. MERRILL, Mr. GEORGE N. OLCOTT, Professor JAMES M. PATON, and the Editors, especially Professor MARQUAND.

No attempt is made to include in the present number of the JOURNAL material published after June 30, 1900.

For an explanation of the abbreviations, see pp. 286, 287.

Count de Marsy.—Charles Alexander Arthur, Comte de Marsy, died at Compiègne, May 29, 1900, in his fifty-seventh year. He was Director of the Société Française d'Archéologie and member of numerous other learned societies.

John Ruskin.—John Ruskin died January 20, 1900, aged eighty years. His works are too well known to need further mention.

Sir R. Murdoch Smith.—The death has to be recorded of Sir R. Murdoch Smith, Director of the Museum of Science and Art at Edinburgh. He was engaged in the excavation of Halicarnassus under the late Sir Charles Newton. He afterwards—from November, 1860, to November, 1861—made excavations in the Cyrenaica, with Mr. E. A. Porcher, and in 1865 they brought out their *Recent Discoveries at Cyrene*. Subsequently he took up Persian art, and did much to add to the collection of Persian work at South Kensington, besides writing the 'Manual of Persian Art' in the *South Kensington Handbooks* (1876). For the last fifteen years he had been at the head of the Edinburgh Museum, and was chairman of the managers of the Scottish Portrait Gallery. (*Athen.* July 7, 1900.)

EGYPT

RECENT EXPLORATIONS.—In the April, 1900, number of the *Popular Science Monthly*, W. M. Flinders Petrie gives an account of 'Recent Years of Egyptian Exploration,' including a summary of the results attained and a criticism of the management of the Department of Antiquities. In *Biblia*, July, 1900, pp. 116–120, is a brief report of discoveries in Egypt in 1899–1900, taken from the *London Times*.

ABU GURAB.—**Chambers with Reliefs.**—The excavations made last winter near Abu Gurab, north of the Pyramids of Abusir, have been continued during this winter. Abu Gurab contains a temple of the sun, which King N-user-re, of the fifth dynasty, built, and the centre of which consisted of an immense obelisk. During this winter, the débris on the south side of the obelisk was cleared away. Two rectangular chambers, ornamented with bas-reliefs, were opened up. In one chamber were portrayed scenes of the royal jubilee, also the laying of the corner-stone of the temple. The reliefs in the other chamber contain figures of animals and scenes of country life, also figures of men and women representing various provinces and districts which have the same names as in later times. How the animal figures, etc., hitherto found only in tombs, happen to be on the walls of a temple, is a mystery. (*G. STEINDORFF, S. S. Times*, March 31, 1900.)

ABYDOS.—**Petrie's Discoveries.**—Professor Petrie has made some discoveries at Abydos, which will materially alter our views of early Egyptian history. He has found ivories and other objects inscribed with names that he claims to be able to identify with those given in Manetho or the Abydos tablet as those of the kings of the first dynasty, and these are further said to correspond with the hawk or banner names discovered by M. Amélineau on the same site, between 1895 and 1898. In this way he is able to account for the whole of the first dynasty, which has been looked upon as mythical, and also to show that the great royal tomb discovered by M. de Morgan at Negadah was really that of Menes, the first king of Egypt. (*Athen.* May 5, 1900.)

In *S. S. Times*, May 5, 1900, in a letter from Professor Steindorff, it is stated that Petrie excavated at various points in the great necropolis at Abydos. In the village of Arâba a temple of Osiris was discovered. Excavations were begun near the so-called mounds of Kom es-Sultân, and many antiquities were found, among them a fine limestone sarcophagus of the time of Nectanebus I.

KARNAK.—**Repairs of the Temple.**—The repairs necessitated by the fall of October 3, 1899, have been begun. For lowering and raising of the heavy blocks of stone an inclined plane is to be employed. The earth for this is derived from part of the temple, and several discoveries have been made there; e.g. a stele of King Antef V, of dynasty 11 (Petrie's arrangement), a fine statue of a scribe called Dhutly, an inscription recording the reconstruction of the temple by Thutmosis III. This was mutilated by Amenophis IV, and recut by Seti I. Here were also found statues of Haremhabi, the Goddess Mut, etc. The small temple of Ptah proves to be very pretty, and can be reconstructed completely, as the stones which had fallen from the propylæa built by the Ptolemies have all been found in the clearing out. (W. MAX MÜLLER, *Independent*, March 15, 1900.) M. Legrain, in setting up the fallen columns of Karnak, discovered a city gate. It is the first found in Egypt, and is of great height. It bears the date of the eighteenth dynasty. It was erected by Amenhotep. A second and more important discovery at Thebes is a large tomb of the eleventh dynasty in perfect preservation. (*Biblia*, May, 1900.) In the *Sitzb. Berl. Akad.* 1900, pp. 58-71 (8 figs.), is an account by L. Borchardt of the fall of part of the temple of Amon at Karnak, October 3, 1899. The chief causes of the misfortune are the character of the soil and the artificial flooding of the temple.

NAUCRATIS.—**Excavations in 1899.**—In the *Annual of the British School at Athens*, V, pp. 26-97 (pls. ii-xiv), is an account of excavations at Naucratis, begun February 14, 1899, by D. G. Hogarth and carried on with the assistance of C. C. Edgar and C. D. Edmonds. The site and buildings are discussed by D. G. Hogarth (pp. 26-46). The southern part of the site appears to have been purely Egyptian, perhaps a fort. A great *temenos* in the northern part was probably the *Hellenion*. Here were found dedications to Apollo, Heracles, Zeus, Poseidon (?), and Artemis, besides others to Θεοῖς τοῖς Ἑλλήνων or Ἑλληνίους. To the west of this are the *temene* previously explored. Aphrodite had an important cult throughout the Greek occupation of the site. The inscribed and painted pottery is treated by C. C. Edgar. He finds that there is no archaeological evidence to invalidate the statements of Herodotus that Amasis settled the Greeks at Naucratis about 570 B.C. Inscriptions from a large number of sherds are published, almost all being dedications to deities or mere names. Many fragments are published in the plates and figures in the text. The same writer (pp. 65-67; pl. ix) publishes and discusses a sandstone relief representing a warrior. The front or outer surface of the relief is almost flat, and the details were no doubt given in colors. The relief was found in what appears to have been a shrine of Aphrodite in the *Hellenion*. It probably formed a part of the decoration of the temple, which is dated not much before 500 B.C. The terra-cottas are discussed by Clement Gutch. They number nearly four hundred, the specimens ranging from the sixth century B.C. to the second century after Christ. A number of these are of

types akin to those already known at Naucratis, thirty or forty are small heads of 'Tanagra' type and other figures of comparatively late date, while there are remains of nearly a score of unusually large and fine female heads, chiefly of the fifth and fourth centuries B.C. All these form three groups, and all were probably votive offerings. A fourth group belongs to the Graeco-Roman period (mostly from 150 B.C. to 150 A.D.), and the vast majority appears to be connected with the worship of Harpocrates. Probably these figurines were set up in private houses. The technique of the terra-cottas, the use of moulds and of colors, is discussed and the individual specimens described.

Stele of Nectanebo II.—In *C. R. Acad. Insc.* 1899, pp. 793-795 (pl.), G. Maspero publishes a stele from Naucratis, given to the Gizeh museum by Prince Hussein Pacha. At the top of the stele is Nectanebo II, making offerings to the goddess Nit of Sais. Below is an inscription of fourteen columns. The king gives thanks to the goddess, ascribing to her aid his success in establishing himself on the throne. He provides for offerings to her from tithes of import duties and other revenues derived from the cities of Hounit and "Pa-mariti, also called Krati, on the bank of the canal Ânou." The same place is also called Karati and Naou-Karati. This is evidently the Greek Naucratis, that name being understood by the Egyptians as two words, meaning "the city of Crates." Hounit was doubtless on the Canopic branch of the Nile. This inscription contains the first direct mention of tithes in Egypt.

SAKKARAH.—The Pyramids and Tombs.—Maspero has again taken up the examination of the pyramids near Sakkarah, paying special attention to the chapels, enclosures, etc., belonging to them. The excavations, conducted by Barsanti, have begun at the pyramid of Unas. The depth to be excavated is very great. An intact grave of a certain Samnofer, several mummy-pits of the Saite period, one, belonging to a certain Psammetik, 26 m. deep, the walls of the funereal chamber covered with texts of ancient formulas, have been found. A very large stone sarcophagus, with a lid more than 1 m. high, was found there. Another sarcophagus, of basalt, of good workmanship, contained the mummy of a woman. In an adjoining chamber a woman, called Set-iri-boone, was buried, with four unusually fine Canopic vases, etc. Another mummy-pit is even deeper than that here described. (W. MAX MÜLLER, *Independent*, March 15, 1900.)

THE OASIS OF SIWA.—Tombs and Temples.—In *S. S. Times*, March 31, G. Steindorff writes of his expedition to the oasis of Siwa. The hill Garit el-Musabberin, "the Mount of the Embalmed," near the village, is full of pillaged graves. In only one tomb were well-preserved Egyptian writing and pictures. In other tombs were remains of Egyptian and Greek ornaments. The chief monuments are at or near the village of Agurmi. Here, in the temple, and also at Ummabeda, where are the remains of the great ruin once identified with the temple of Jupiter Ammon, the place of the Egyptian Pharaoh is taken by a monarch called the "Prince of the Desert Regions." Apparently then the oasis was politically independent of Egypt in the time of the Ptolemies. At Abu'lauwaf, on the eastern border of the oasis, is a large necropolis of the Graeco-Roman period. The small oasis of Areg, now uninhabited, contains many ancient rock sepulchres, with Egyptian and Greek ornamentation. At the oasis of Baharije, the oasis

parva of the Romans, two new temples were discovered, one built during the reign of Apries (588-569 B.C.), the other during that of Amasis (569-526 B.C.). A tomb, belonging to Huj, prince of this oasis, was excavated. He appears from the style of the reliefs to have lived about the time of King Ramses II, the thirteenth century B.C. The reliefs represent Huj praying, also scenes from his estates.

UMM EL BARAGÂT.—A Large Find of Papyri.—At Umm el Baragât, the ancient Tebtunis, Grenfell and Hunt have come upon a cemetery of human mummies and a cemetery of mummied crocodiles. A vast number of papyri were used as wrappings and fillings. Some of these are demotic, but more are Greek. The effect of this discovery is approximately to double the extant amount of Ptolemaic papyri written in Greek. Remains of a temple of Saknebtunis, several houses, coins, scarabs, amulets, vases, a Coptic church, and (in the Roman cemetery) several portrait heads on wood were found. These are similar to those found at Hawara and Rubayyât. Two specimens are of unusual interest, the one containing on the back a sketch of the portrait on the front, while on the back of the other are memoranda for the painter, giving a brief description of the salient features of the deceased—instructions which show that these “portraits” were to a large extent imaginary. In another Ptolemaic cemetery, six miles to the west, a few more mummies with papyrus cartonnage were discovered. The Gizeh Museum has kept a representative selection of the miscellaneous antiquities and the most important of the demotic papyri. The rest of the papyri are on their way to Oxford for publication. Subsequently they will be divided between the museums of Gizeh and the University of California, to which the other objects will be sent direct. As the discoverers have other engagements for the present, it will be some time before the first volume of the papyri can be published.

These excavations were conducted on behalf of the University of California, with funds provided by Mrs. Hearst. (*Athen.* May 12, 1900.)

BABYLONIA

NIPPUR.—American Excavations.—In *S. S. Times*, February 3, 1900, the discovery is reported of numerous inscribed tablets of the time of Sargon I (3800 B.C.), and Narâm-Sin, and some of earlier date. An inscribed door-socket of diorite was found below the platform of Sargon I. Nearly forty clay impressions of seal cylinders of the time of Sargon I show high development of art. Three fragments of an inscribed barrel-cylinder of baked clay have been found among the débris which marks the period of the later Assyrian kings. In *S. S. Times*, May 5, Dr. Hilprecht reports the discovery of a series of rooms which furnished over sixteen thousand cuneiform documents, forming part of the temple library in the latter half of the third millennium B.C. The total number of tablets found during the campaign of 1899-1900 amounts to more than twenty-five thousand. Sumerian words and signs figure prominently among them. In *S. S. Times*, May 26, it is reported that the fortifications of the early city are being investigated and that two gates in the wall have been found. A Jewish settlement of the seventh century after Christ was discovered. A Babylonian kitchen in a good state of preservation, of a date earlier than 2000 B.C., was found. A large government building, not older than 300 B.C., has been investigated. More than

forty coffins, generally of the slipper form, were opened in the course of this work. The building consisted of rooms about three sides of an open court of columns facing the temple. Numerous iron hinges, nails, and door-sockets were found.

With a view to determining the southern limit of the city, a wall partially laid bare by Dr. Haynes, and later abandoned by him for lack of tangible results, was examined. With a gang of thirty men Hilprecht resumed the excavations here, following the entire length of this wall, and determining its exact character and age. The wall is well built, nearly six hundred feet long (including all angle returns), and represents the southern façade of a large pre-Sargonic palace of the beginning of the fourth pre-Christian millennium. The palace was at least two stories high, had small windows near the ceilings of its rooms, and was paved with the same excellent bricks which formed its southern façade. A solidly constructed well, and a large vase with rope pattern, both of the same type as discovered below Sargon's platform in the temple court, were found in the western wing, a *latrina* was found at the eastern side, and two pre-Sargonic tablets, in excellent preservation, were taken from the floor of two rooms in different parts of the building.

The pre-Sargonic Nippur was evidently of far greater extent than had been anticipated. This, however, is only in strict accord with what the cuneiform documents record as to the important historical rôle which the temple of Bêl played at the earliest period, long before Babylon achieved any prominence.

In *S. S. Times*, July 7, 1900, Hilprecht mentions the discovery of many Hebrew and Mandaean terra-cotta vases of the period 500-900 A.D. These bowls generally contain representations of demons, often fettered. To the same period belongs a sycamore writing-box. A handsome silver vase and several hundred Cufic silver coins were found together. Much silver and gold jewelry was found in the slipper-shaped clay coffins of the period 300 B.C.-700 A.D.

In a brick vault of the Roman period was a wooden coffin, originally of fine workmanship, as testified by the silver handles found alongside. In it lay the remains of a tall man. Partly on his bones, partly scattered on the floor of the mortuary chamber, were two diamond-shaped gold plates, each about four inches long, two gold frontlets, two heavy gold buckles, representing a lion's head and inlaid with precious stones, six gold rosettes, one gold earring, and a string of heavy gold beads. The vault, having been constructed below the floor of a chamber in the temple precinct, had fortunately escaped pillage.

From among the numerous antiquities belonging to the Babylonian period, 2700 to 538 B.C., Hilprecht mentions the barrel-cylinder of Sargon II (727-705 B.C.), reporting his buildings at the temple area, that of Samsuilûna, a king of the first dynasty of Babylon (about 2200 B.C.), recording his restoration of the city walls, the large fragment of an even earlier barrel-cylinder written in a peculiar poetical form, in which the single strophes are indicated by deep round holes, the stone tablet of Ur-Sur (about 2800 B.C.), referring to his building the city wall, recently followed up and exposed by the expedition, and the inscribed door-socket of his son Dangi.

Two newly discovered bricks record that Esarhaddon (681-669 B.C.) con-

structed a large well within the temple of Bêl "for the preservation of his life," and that the Cassite king Shagarakti-Shuriash (about the middle of the thirteenth century B.C.) built the northeastern inner temple enclosure surrounding the watercourse of Kadashman-Bêl, another king of the Cassite dynasty. From a beautiful truncated clay cylinder of Assur-bân-apal (668-626 B.C.) we finally learn that there was a sacred mortuary chamber or tomb at Nippur, the walls of which had collapsed, but were restored by the king, its foundation being laid at the "breast of the earth." Other not less important documents of religious, astronomical, mathematical, linguistic, and general didactic contents, and numerous letters, have come to light.

To the earliest pre-Sargonic period (about 3800 B.C. and before) belong several hundred clay tablets, easily recognized by their flat form, rounded corners, and early writing. In the excavations along the southern end of the northeastern city fortifications, round baked clay balls, copper arrow- and spear-heads and stone mace-heads, were often found, showing that the chief weapons used by the early Sumerians in connection with the siege of their cities were the sling, spear, arrow and bow, and the mace. In the same neighborhood were found seven large fragments of a stone relief of the type of the famous stele of vultures from Tello. A small seated but headless marble statue, and the inscribed lower halves of two others, with a number of stone vases, incised slabs, and terra-cotta reliefs, belong to the same ancient period.

BABYLON.—German Discoveries.—The *Independent*, May 3, 1900, says that the first thin volume of the report of the German expedition to Babylon is given to the description of a remarkable stele, 4 feet high, with a fine figure in relief of the Hittite god of war, who may have been called Tishub. He is represented with one hand raised holding a battle-axe over his head, and the other holding a trident thunderbolt. He has on a short garment and high boots, and the figure is much like other representations of this god, and especially one found a few years ago by the Germans at Zingirli, not very far from Aintab, in Turkey. The other, rounded, side of the stele is covered with a long Hittite inscription in perfect preservation. This monument must have been carried, perhaps by Nebuchadnezzar, to Babylon as a trophy, though it must be older than the time of that king. Later reports from Dr. Koldewey announce the discovery of the mighty wall of Babylon. It is 136½ feet wide, built of two retaining walls, one 23½ and the other 44 feet thick, built of burnt bricks laid in asphalt, and between them a filling of sand and gravel 69 feet thick. An entire temple has been found, built by Assurbanipal, and a long inscription in honor of that king and his brother, whom he placed in command at Babylon. The mound of Kasr represents a new suburb of Babylon, and nothing older than the seventh century B.C. has been found there. In the *Nation*, July 12, 1900, it is reported that the new annual report of the Orient-Gesellschaft gives the particulars of the discoveries at Babylon. Over five thousand glazed and colored bricks, once a part of the east wall, have been unearthed, and these placed together show the pictures of white lions with yellow manes and yellow lions with green manes. The expectations of finding documentary data for the political history and civilization of ancient Babylonia have not been disappointed. A sculptured representation of the Babylonian deities contains a long inscription of considerable importance in this direction. It

has not yet been examined in detail. A stele representing the Hittite god of thunder and lightning, with a Hittite inscription of six lines, is a valuable addition to the meagre list of Hittite inscriptions secured. Its contents evidently are of a historical nature.

A summary of the work of the German expedition is given in *Biblia*, June, 1900, pp. 97-99, cf. pp. 101-102. A somewhat more elaborate summary, from the second annual report of the Orient-Gesellschaft, is in *Berl. Phil. W.* May 19. In *S. S. Times*, May 5, the discovery of the temple of Nin-Makh and a terra-cotta statuette of the goddess, besides two new inscriptions, is recorded. In *S. S. Times*, July 7, it is stated that Dr. Meissner having resigned from the expedition, his place is taken by Dr. Lindl.

PALESTINE AND SYRIA

INSCRIPTIONS.—In the *Mittheilungen und Nachrichten des deutschen Palaestina-Vereins*, 1899, No. 5, pp. 81-91, R. Brünnow concludes his record of his journey in Palestine in 1898 by publishing thirty-seven Greek and Latin inscriptions, several of which are known from other sources.

In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 19-36 (fifty-six facsimile cuts of inscriptions), E. Kalinka publishes inscriptions supplementary to those which have appeared in the *Anzeiger der böhmischen Kaiser Franz Josef-Akademie für Wissenschaft Literatur und Kunst*, Bd. VII, and in the *Denkschr. der kais. Akad. der Wiss. in Wien*, XLVI, No. III. They come from the report of a journey in Syria by Dr. Alois Musil made in 1895. The inscriptions are largely from graves and milestones. No. 6 is noteworthy for its bearing upon the Arabian Acra. No. 54 is supplementary to that published by Bücheler in *Anthologia Latina*, II, *Carmina Epigraphica*, I, 296.

JERUSALEM.—**A Tomb.**—In *C. R. Acad. Insc.* 1899, pp. 781 f., P. de Saint-Aignan reports the discovery, at the spot called Râs el-Madbesè, near Jerusalem, of a tomb consisting of an antechamber and two chambers cut in the rock. A third chamber may exist. In the two chambers were twenty-nine stone ossuaries in the form of small chests variously adorned. Three have Greek inscriptions, two Hebrew inscriptions, and two simple initials. Among the names are Ἐρωτάριον (genitive of the diminutive Ἐρωτάριον) Πρώτας, and Πάπ(π)ος.

BAALBEK.—**A Prussian Expedition.**—A Prussian expedition to study the temples of Baalbek is to be sent out under Puchstein's leadership. (*Berl. Phil. W.* June 30, 1900.)

A Latin Inscription.—The following inscription is engraved on a stele of limestone found at Baalbek: *D(is) M(anibus) [S(acrum),] | Aur(elius) Vict(or) duce(narius) prot(ector) | vixit annis XXXX. Vivite | felices et nostris profundite manibus et memores estis vos | nobiscum esse futuros. Aurelius | Baladuc(enarius) prot(ector) fratri pietissimo memoriam institu[it].* The first line of the distich contains an extra syllable *et*. For similar lines see *C.I.L.* II, 391; III, 4483; V, 3403. For *ducenarius protector* see MOMMSEN in *Eph. Epig.* V, p. 121, and JULLIAN, *De Protectoribus et Domesticis Augustorum*. The probable date of the inscription is in the last half of the third century after Christ. (*B. Soc. Ant. Fr.* 1899, p. 379.)

ASIA MINOR

PRE-CHRISTIAN CAPPADOCIAN CITY.—In *Berl. Phil. W.* May 26, 1900, is a note by H. Zimmerer containing the substance of a letter from Anastasios Levidis, Ephoros of the hieratic school at Sindschidéré, near Kaisarieh. According to this, remains of buildings, a mass of broken tiles, vases, cups, urns with stamps and containing ashes, ornaments of bone, grave monuments, and "Cappadocian" inscriptions on small unbaked bricks in characters similar to the cuneiform, have come to light in a hill Kultepe, near Kaisarieh. One Greek inscription, ΓΟΡΓΟΝΟΞ, is legible on a tile. Some tiles have traces of reliefs, in which the writer recognizes the Cappadocian goddess Ma. There is no trace of anything Christian.

BITHYNIA.—**Inscriptions.**—The fifth part of Alfred Körte's *Kleinasiatische Studien* (Athen. *Mith.* XXIV, 1899, pp. 398-450; pls. xi, xii) is devoted to Bithynian inscriptions. (1) Nicaea (Isnik). The walls are of different dates from early imperial to Turkish times. The Leokeh and Stamboul gates are shown by inscriptions to belong to 70-71 A.D. Inscriptions 1-7 (*C.I.G.* 3745, 3746) are from these gates. No. 8 is a corrected version of *C.I.G.* 8664. Nos. 9-11 are mortuary and fragmentary inscriptions. (2) Cios-Prusias (Gemlik). No. 12 is a fragment of a decree of the Magnetes by Sipylus in honor of some arbitrators of Cios-Prusias. No. 13 is a metrical fragment, probably of an oracle, containing directions for the cult of Demeter. No. 14 is the ephebic list of 108-109 A.D., already published by Radet, *B.C.H.* XV, 1891, p. 481. No. 15 is fragments of a resolution of sympathy. Nos. 16-19 are unimportant fragments. (3) Nicomedia. Nos. 20 and 21; the latter is incomplete in *C.I.G.* 3791. (4) Prusias on the Hypius (Üsküb-Kassaba). Nos. 22-26 are honorary inscriptions. Nos. 27-48 are from a number of villages, and are for the most part mortuary or votive inscriptions. No. 27 contains two elegiac couplets. No. 32 adds one to the few Latin inscriptions of this region. Nos. 35-38 are in honor of Zeus Bronton, showing a Phrygian population. No. 48 is a fragment of a long and carefully written grave inscription.

EPHESUS.—**Austrian Excavations.**—In *Berl. Phil. W.* April 28, 1900, is a summary of Heberdey's report of the Austrian excavations at Ephesus in 1899. The theatre has been laid bare and its history determined. The great harbor, hitherto regarded as Roman, appears to be Hellenistic. Various other buildings, especially a magnificent gate, are described. An inscription has been found which gives the apocryphal correspondence between Jesus Christ and Abgarus of Edessa. (Cf. HARNACK, *Gesch. d. altchristlichen Literatur*, I, pp. 533 ff.) The report is published in full in the *Anzeiger d. phil.-hist. Cl. d. Akad. d. Wiss. in Wien*, February, 1900, No. V, and *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 84-96 (2 cuts).

MEGISTE.—**Inscriptions.**—*B.C.H.* XXIII, 1899, pp. 333-339, contains 11 fragmentary inscriptions from Megiste (Castellorizos) in Lycia, copied by A. Diamantaras, who also communicates some late Christian inscriptions from the same place. The latter include two in metre.

MILETUS.—**German Excavations.**—In *Sitz. Berl. Akad.* 1900, pp. 104-115 (3 figs.), is an account of the German excavations at Miletus, by Kekule v. Stradonitz. The city wall, a careful construction chiefly of Hellenistic times, has been followed a considerable distance. A building like a

theatre with a rectangular courtyard has been found. This court, surrounded by colonnades, and containing an altar, was clearly intended for some public purpose. A large number of inscriptions (191) and many fragments of sculpture, chiefly architectural, have been found. The inscriptions are chiefly of the third, second, and first centuries before Christ, though earlier and later times are represented. The only emperors mentioned are Trajan and Hadrian. An interesting inscription is published recording a dispute between Miletus and Myus, decided by the satrap (ἐξαιράτης) of Ionia in favor of Miletus. A summary of the report is given in *Berl. Phil. Woch.* April 28, 1900.

PANDERMA. — **A Hellenistic Relief.** — A marble slab with a Hellenistic relief of a woman walking and playing the cithara with both hands has been found near Panderma in Asia Minor, and is now in the Ottoman Museum. (A. CONZE, *Arch. Anz.* 1900, p. 18; cut.)

TERMESSUS. — **Inscriptions.** — In *B.C.H.* XXIII, 1899, pp. 280-303, G. Cousin continues his publication of the inscriptions of Termessus in Pisidia. Nos. 61-69 are funerary inscriptions of some value for the semi-barbarous names of Pisidia. § II contains a fragment of 24 lines recording an agreement between Termessus the Great and Dalle, or Daldis, a city of Lydia, and an honorary inscription, and some fragments from near the theatre. § III contains thirty honorary inscriptions from bases in the upper part of the city. Ten of these are also in Lanckoronsky's work.

BULGARIA

PHILIPPOPOLIS. — **A Roman Chariot.** — A Roman chariot has been found in a tumulus near Philippopolis. All the metal accessories, with bronze figures, and the harness for a horse were found, together with human remains and arms. (*Chron. d. Arts*, February 3, 1900.)

VARNA. — **Discoveries.** — In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 68-74 (8 figs.), Karl Skorpil reports the discovery near Varna of a tomb containing a female skeleton, gold ear-rings, and the seal of a gold ring. He reports also three marbles of minor importance in the museum at Sofia.

INSCRIPTIONS FROM BULGARIA. — In a volume entitled *Matériaux d'Archéologie en Bulgarie*, V. Dobrusky has published a number of inscriptions of Moesia and Thrace which have been hitherto unpublished. Among these is a military diploma, now in the museum at Sofia, which is published in facsimile.

Page 133. The First Face:

... quas nunc habent cum iis civit·d[a] | tur aut si q·caelib·sunt, cum is qua[s] |
| post duzer·, dumtaxat singuli sin|gulas pr·k·Mar·Kano Iunio Nigro | C·
Pomponio Camerino cos· | coh·II Mattiacor·cui praest | T·Flavius Laco Side,
| ex pedite | Clagissae Clagissae f·Bess· | et Spor[a]e et Derzizeno f·et Epta-
cent[o] | et Zinae fil·et Eptaperi fil·eius· | Descript·et recogn·ex tabula
aerea | quae fixa est Romae in muro post | templ·divi Aug·ad Minerva.

The Second Face:

[Imp·Caesar divi T]raiani Parthi f·divi | [Nervae nepos Tr]aianus Ha-
drianus | [Aug·pontif·max·trib·] pot·XXI imp·II cos·III pp | [eq·et ped·qui
mil·in] al·III et coh·V q·app | et II His·Arv·et I |
et I Chal·et I Lusi | [et su]nt in Moes·infer· | [sub... stip·emer·]

XXV ite·clas·XXVI | [dimissis] hon·mis·quor· | [nom·subscr·sunt
ci]v·ded·et con·cu· | [uxor·quas nunc habent cum is ciu·] dat·aut si q· |
caelibes sunt, iis quas post dux·, dumtax·sin· | [singulas].

The Third Face:

Pr·k· [Martias] | Kano et [Camerino cos·] | Coh·II Matti[acorum cui
praest] | T·Flavius [Laco Side,] | ex pedit[e] | Clagisae Clagis[ae f·Bess·] |
et Spor[a]e et Derz[izeno f·] | et Eticento f·et Z[inae f·] | et Epreri f·[eius].

The Fourth Face:

Ti·Claudi [Menandri] | Patti [Severi] | L·Pulli [Daphni] | Patti
| T·Flavi [Romuli] | Ti·Iulis [Felicis] | C·Iuli [Silvani].

The date is February 28, 138 A.D., in the reign of Hadrian. The diploma is published also by E. Borrmann, *Jh. Oesterr. Arch. I. III*, 1900, pp. 11-32 (6 figs.). The parts supplied are obtained from a similar diploma in *C.I.L. III*, p. 1957, 2038.

Another diploma from Gabarevo, now in the museum at Sofia, is published by Dobrusky for the first time.

Page 140. The First Face:

[et I] Ulp[ia s]in[g·et I] Ulp·Dromad·et co[h·] | XVII Ulpia Dac[or·
e]t I Ulp·Petreor·et I Au[g·] | Pannon·et I Cl[au]d·Sugambr·et I Asca-
lonit· | sag·et I Flav·C[hal]ciden·et II Ulp·equit·et | II Italic·R·e[t I] I
Ulpia Paphlag·et II Thrac· | Suric·et II classic·sag·et III Ulp·Paph-
sag·et | et III Aug·Thrac·et IV Gall·et Ulp·Petr·et | VII Gall·et sunt in
Suria sub Attidio | Corneliano leg·, quinis et vices pluribus | stipend·emerit·
dimiss·honest·miss· | [q]uor·nomin·subscr·sunt civit·Roman· | [qui] eor·non
haber·dedit et conub·cum | [uxor·] quas tunc habuis cum est ci[cit·] | is data]
aut cum is quas post du[xiss·] | dumt·singul[i] singulas a·d·VI | ...
..... no C·Aelio Se [cos | alae Ul]p·singul[arium cui praest].

The Second Face:

[Imp·Cae]s·divi Hadria[ni f·divi Traiani | Parth·]n·divi Nervae [pro-
nepos | T·Ael]ius Hadrianus An[toninus Aug·] | Pius] p·m·tr·pot·XX imp·
I[I cos·IIII p·p·] | eq·et pe]d·q·m·in alis ... quae appe[llantur] |
be·C et I Ulp·Dromad·et | coh·] XVII Ulp·Dacor·et I Ulp·Petr·et I [Aug·
Pannon·] | et I Clau·S]ugambr·et I Ascalon·et I Fl[av·Chalciden·] | et II
Ulp·equit·et | II Italic·Cret·II Ulp·Paphl[ag·et II Thrac·] | Suric·] et II
classic·sag·et III Ulp·Paphl[ag·et III Aug·] | Thrac·] et IV Gall·et V
Ulp·Petr·et VII Gall·et [sunt in | Suria] sub Attidio Corneliano leg·XXV
[plurib·stipend·] | em·di]m·hon·mis·quor·non subscr·[sunt civ·] | Roman·]
qui eor·non hab·ded·et con[ubium cum | uxor·] quas tunc hab·cum est civ[it·]
data aut | cum is] quas post duxiss·, dum[t·sing·sing·].

The date is 157 in the reign of Antoninus Pius. The diploma is published also by E. Borrmann, *Jh. Oesterr. Arch. I. III*, 1900, pp. 11-32.

The following inscriptions are worthy of notice especially as being hitherto unpublished:—

(1) From Roupki near Tchirpan (p. 98):

ΑΓΑΘΗ ΤΥΧΗ | ΑΥΤΟΚΡΑΤΟΡΙ Α ΞΕΠΤΙ|ΜΙΩ ΞΕΥΗΡ ΠΕΡΤΙ-
ΝΑΚΙ ΑΡΑ|ΒΙΚΩ ΑΔΙΑΒΗΝΙΚΩ ΠΑΡΘΙ|ΚΩ ΜΕΓΙΣΤΩ Κ Μ

ΑΥΡ ΑΥΩΝΕΙ|ΝΩ ΞΕΒΒ Κ ΠΥΠΑΙΩ ΞΕΠΤΙ|ΜΙΩ ΓΕΤΑ
 ΚΑΙΞΑΡΙ ΗΡΑΙΑΝΕ|Ν ΠΟΛΙΞ ΜΕΙΛΙΟΝ | ΗΙ | ΗΓΕΜΟΝΕΥΟ-
 ΝΟΣ ΤΗΣ ΕΠΑΡΧΕΙΑΣ Γ ΚΑΙΚΙΝΑ ΛΑΡΓΟΥ | ΠΡΕΞΒ
 ΞΕΒΒ ΑΝΙΞΡΑΤΗΓΟΥ |

The date is 199 A.D.

(2) From Polatovo (District of Philippopolis) (p. 101):

ΑΓΑΘΗ ΤΥΧΗ| ΑΥΤΟΚΡΑΤΟΡΙ Μ αὐρ | ἀντωνείνω ΕΥΤΥΧΕΙ
 ΕΥΞΕΒΕΙ | ΞΕΒ Η ΛΑΜΠΡΟΤΑΗ ΤΞ ΘΡΑΚΩΝ | ΕΠΑΡΧΕΙΑΣ
 ΜΗΡΟΠΟΛΙΣ ΦΙΛΙΠΠΟ|ΠΟΛΙΣ ΝΕΩΚΟΡΟΣ ΗΓΕΜΟΝΕΥΟΝ|
 ΤΟΣ ΡΟΥΤΕΙΑ ΠΥΔΕΝΟΣ ΚΡΙΞΤΕίνου | πρεσβευτοῦ σεβ.
 ἀντιστρατήγου.

(3) From Gradinié (District of Tsaribrod) (p. 104):

τύχης τε | καὶ νέικης καὶ αἰώνιον διαμονῆς ἡγεμονεύοντος τῆς | Θρακῶν
 ἐπαρχείας Ρουτιλλ. | Κρισπέινου πρεσβ. | Σεβ. καὶ ἀντιστρατήγου ἡ
 Πανταλεωτῶν πολὺς τὸ | μείλι(ον) ἀνέστησεν | εὐτυχῶς.

The following inscriptions show some unusual forms:

Page 20. From Malka-Brustnitsa (District of Seteren): *Her(vi) Divesanto Fl(avius) Mestrius mi|(les) cohort(is) II Lucensium votu posuit.* Page 34. From Gabaré (District of Biélo Slatina): *Dianae Scop|ttae pro salu|te d(omini) n(ostri) Seve[ri] Pi(i) Aug(usti) Domi|tianus eiu[s] | vil(icus) v(otum) c(um) s(uis) l(ibens) | p(osuit).* Page 45. From Koulé Makbula (District of Lour): *S. Settius | Plotus | vet(eranus) leg(ionis) II[II] F(laviae) | F(idelis) p(ater) s(acrorum) d(ei) | invicti, v(otum) l(ibens) m(erito).* Page 70. In Sofia: *Silva|no et·| silvest|ris Iuli|anus | cum me(rito).* Probably the fourth line is *s(acrum) Iulianus.*

GREECE

ATHENS.—*Inscriptions Cut in the Rock.*—In 'Εφ. 'Αρχ. 1899, pp. 237–240, A. N. Skias publishes facsimiles of two inscriptions cut in the rock at Athens. The first is in the gorge northwest of the Museum hill. It reads [Ὁ]λυνθος καλὸς μὲν ἰδεῖν | τερπνὸς δὲ προσειπείν in characters of about the end of the fifth century B.C. The second inscription is on the northwest side of the Museum hill. It reads [Η]ερόν | Μητρός. The characters are those of the middle of the fourth century B.C.

The Stoa of Attalus.—The Stoa of Attalus has now been almost entirely excavated by the Greek Archaeological Society. The twenty-one rooms are now opened. The three most northern rooms and the present northern *exedra* were added soon after the building was erected. A helmeted head of Athena appears to be the most interesting of the smaller objects found. A special publication by Mylonas is in preparation. (*Athen. Mith.* XXIV, 1899, p. 487.)

Work of the French School in 1898.—At the French School at Athens, November 30, 1898, Director Homolle gave a report of the work of the French School during the previous year. (*B.C.H.* XXII, 1898, pp. 558–566.) Members of the School have made explorations in Locris, Doris,

Boeotia, Crete, Thrace, Delphi, Daphni, Mistra, and Mt. Athos. The publications projected are mentioned.

The Anniversary of the German Institute.—On March 12 the German Archaeological Institute at Athens celebrated its twenty-fifth birthday, and, thanks to the zeal of the German Imperial Government for science, in its own house and on its own ground. The land belonging to the late Dr. H. Schliemann was purchased for the Institute at a cost of 200,000 marks, and a further grant of 20,000 marks was added for the erection of a hall, where the sittings of the institute can be held. (*Athen.* April 7, 1900.) A full account of the celebration is given in the *Ἄστυ*, February 29, O. S. (= March 13, N. S.), 1900, with the speeches of Dörpfeld, Kavvadias, and Homolle. (See also *Arch. Anz.* 1900, pp. 34–35.) At the regular meeting of March 14 a report of the excavations at Paros was given, with stereopticon illustrations. (*Arch. Anz. ibid.*)

The Austro-Hungarian Archaeological Institute.—The Greek government has expressed its willingness to grant a site in the neighborhood of Athens for the erection of an Austro-Hungarian Archaeological Institute. (*Athen.* April 7, 1900.)

The Sanctuary of Bendis in the Piraeus.—A new decree of the *δρυεῶνες* of Bendis, found in the Piraeus, is published with a brief commentary by J. Demargne in *B.C.H.* XXIII, 1899, pp. 370–373. The discovery of several inscriptions relating to Bendis on the same locality warrants the belief that the Bendideion was not on the hill of Munychia, but near the Zanneion, where foundations still exist.

CHRYSOVITZA.—**Terra-Cottas.**—In *Ἄστυ*, March 21 (= April 2, N. S.), 1900, it is reported that about two hundred terra-cotta figurines and a hundred vases have been found by chance at Chrysovitzza, near Agrinion, in Aetolia. About half of the figurines are of excellent style and workmanship. Two are of Phidian style, similar to those found at Thermon. The vases are of different sizes, though all small, and of various kinds. The place where these objects were found was probably a manufactory.

CORINTH.—**The American Excavations.**—In the *Nation*, June 21, 1900, is a letter from R. B. Richardson, director of the American School of Classical Studies at Athens, giving the chief results of the year's excavations at Corinth. A fountain has been found in the *agora* with its adornment well preserved. The fountain is mentioned by Pausanias. It is built in the ground, and has the form of a rectangular room with its sides cased with *poros* blocks. It was reached by seven steps. At the back are two bronze lion's heads through which the water flowed. A balustrade at the top of the steps is adorned with slabs taken from earlier temples, metopes and triglyphs, with red, blue, and yellow color still preserved. Pausanias mentions a bronze statue of Neptune with a dolphin at his feet, but this has not been found. Other discoveries are a pair of colossal figures wearing the Phrygian cap, which were evidently so built into a wall as to appear to aid in supporting an architrave. Two female heads apparently belong to the same series. Various parts of the building, probably the propylaea, to which these belong, were found, including a large slab of a coffered ceiling with relief busts of Helios and Selene and a rosette in the sunken squares. A relief representing two dancing maenads appears to have been part of a base of a group of Ariadne and Dionysus. The colossal head of Ariadne

has been found. A small relief with seven beautiful figures was found in the last days of the work. Similar reports are to be found in *Εστία*, May 13 (= May 26, N. S.), *Berl. Phil. W.* June 2 and 30 and July 14, and (with 4 figs.) *Independent*, August 2, 1900.

CRETE.—**Italian Discoveries.**—In *Rend. Acc. Lincei*, 1899, pp. 525–540, F. Halbherr makes a preliminary report of the work of the Italian Archaeological Mission in Crete, from June 9 to November 9, 1899. The first undertaking was a general exploration of the western provinces. The following are among the more important discoveries: Many inscriptions were found, among them one in the monastery of Gonià recording a treaty between Phalasarna and Polyrrhenia. The ancient remains at Phalasarna were studied—the acropolis wall, the temple of Artemis, and the necropolis. At Gortyn two important fragments of the ancient laws were found in excavations on the north side of the *agora*. The walls containing them must have been destroyed in the Roman period. Another excavation was made in the peribolus of the Pythium; near the northeast corner of the temple a

rectangular structure was discovered—probably a *heroum* of the third century B.C. In the suburbs of Gortyn many inscriptions were found, and, besides other sculptures, a fourth century torso of Eros in the Praxitelean style. Excavations at Axus proved that the ruins on the acropolis belonged to a temple. In the town below, a temple before discovered is now shown to have been dedicated to Aphrodite-Astarte, and to have existed as early as the sixth century B.C.

CNOSsus.—**Mycenaean Remains, with Writing.**—In *Athen.* May 19 and June 23, 1900, are letters from Arthur J. Evans announcing important discoveries. At Cnossus, in Crete, he discovered a Mycenaean palace, of perhaps about 1400 B.C., containing stone carving and brilliant fresco-painting excelling anything of that period found in Greece proper. He also found the royal bathroom, which shows a luxury unknown at Mycenae itself. Numerous inscriptions were found in the palace. One class, on clay tablets, is in a linear script (cf. Fig. 1); the other in a script more nearly pictographic (cf. Fig. 2). The linear, and more highly developed, script is probably Mycenaean or “Minoan,” the other

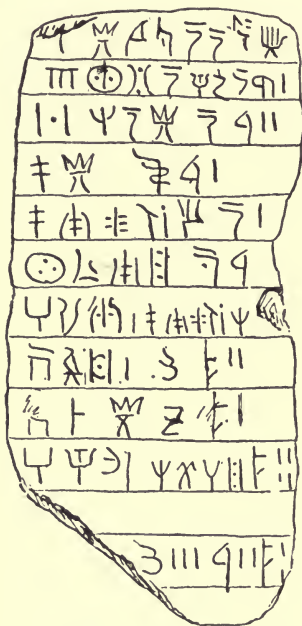


FIGURE 1.—LINEAR SCRIPT
FROM CRETE.

Etoecretan. The number of tablets with the linear script is now several thousand. Specimens of the two kinds of writing are given in cuts. Some fine clay seals and parts of the life-sized figure of a bull were found. This last is the finest plastic work of the Mycenaean age extant. (Cf. *Independent*, May 3, June 7, and August 2, *Berl. Phil. W.* July 14. The first letter is copied in *Biblia*, July, 1900.)

In *Athen.* July 14, 1900, is a summary of a paper by A. J. Evans, read at a meeting of the Hellenic Society, July 5. In this the buildings discovered are briefly described. The paintings represent a procession of human figures of both sexes, a youth holding a cup, griffins, landscapes, and groups of men and women in a hitherto unknown style.

DYSTUS.—**The Ancient City.**—In *Athen. Mith.* XXIV, 1899, pp. 458-467 (2 pls.; 5 cuts), Theodor Wiegand describes the remains of the ancient city of Dystus, in southern Euboea, between Eretria and Carystus. The outer fortification is chiefly of polygonal masonry with towers, pierced by one gate. On the west side is an inner citadel, part of which was used for a Venetian fort. The city was crowded into a narrow space, and the houses are partly cut in the rock and partly sustained by terrace-walls.



FIGURE 2.—PICTOGRAPHIC SCRIPT FROM CRETE.

They frequently have two stories, but are usually of very simple construction,—merely one large room on the ground floor. The plan and detailed description of one larger and more elaborate house is given. The remains are important, for the houses belong apparently to the fifth century B.C., and Greek houses of that period are almost unknown.

ELEUSIS.—**Inscriptions.**—In 'Εφ. 'Αρχ. 1899, pp. 180-222, A. N. Skias publishes fifty Eleusinian inscriptions, for the most part very fragmentary. Among them are honorary and votive inscriptions and records of accounts. No. 6 records a dedication by the Tauromenians of Sicily. No. 12 mentions Ζεὺς Μελιτρώσιος, whose epithet is probably derived from a place name. No. 15 is on what seems to be a fragment of a stone structure answering the purpose of the modern "wings" of the stage of a theatre. The inscription indicates that the hierophant had his place near this wing. Probably the stage was in the telesterion. No. 16 mentions King Epiph-

anes, father of Philopappus. No. 47 mentions, in elegiac verse, the adoption of a proconsul by the Eumolpid family.

ERETRIA. — **Chamber Tombs at Eretria.** — In 'Εφ. 'Αρχ. 1899, pp. 221-234 (pls. xi, xii; 5 figs.), K. Kourouniotes describes two chamber tombs found a few years ago at Eretria. The first consists of a *dromos* and a square chamber, built of *poros* stone, once completely coated with plaster. In the chamber are five large marble receptacles, two in the form of couches, two resembling carved chairs without backs, the fifth in the shape of a chest. These are inscribed with names, among which Euclides is most frequent. The objects of gold and other materials found in the tomb were dispersed, and few are now identified (3 cuts). In the same mound is a solid square structure of brick, 5.10 m. long and 6 m. high. Its purpose is unknown. The second tomb consists of a square, arched chamber, containing two couches once richly colored. These tombs were apparently family vaults. They resemble certain tombs of Macedonia, and are probably, like those, to be ascribed to the fourth century B.C.

MELOS. — **British Excavations.** — The excavations carried on at Melos, by the British School at Athens, in 1899, are briefly reported in the *Annual of the British School at Athens*, V, pp. 3-19; 1 pl. The excavations at Melos are given up for the present, in order to take advantage of opportunities in Crete, and a complete account of what has been done at Melos is to appear in the *J.H.S.*, hence the report for the year 1899 is brief. The season's work is described by D. Mackenzie. Various buildings were excavated and much pottery found, but the most important discovery was the Mycenaean palace of Phylakopi. This was not, as had been supposed, on the high ground at the west of the site, but on the low ground at the east. Other remains of the Mycenaean epoch were found in this region. The structures are described by T. D. Atkinson. A good many fragments of walls of the second settlement were found scattered all over the site. Several houses of the third and fourth settlements were uncovered. The town of the fourth period was divided by parallel streets running east and west, crossed at right angles by other streets. The palace has a hall with a portico, a series of small rooms, a passage between these and the hall, another room at the north end, and a passage along the west side. The whole stands on the north side of a courtyard about 15 m. square. The pottery is described by C. C. Edgar. Specimens of the three classes of native ware and of imported Mycenaean ware were found, as well as Kamarais ware and other imported varieties. Among the geometric patterns of the second period a number of fragments, with representations of birds, fishes, quadrupeds, human beings, and even ships, were found. But the style of drawing is geometric.

PAROS. — **Excavations.** — At the February and March meetings of the Berlin. Arch. Gesellsch., O. Rubensohn reported on the excavations at Paros in 1898-99. These include the city wall, of uncertain date; the *Pythion*, at the western end of the city, with the sanctuary of Asclepius, originally sacred to Apollo, on a lower terrace; a similar double sanctuary of Aphrodite and Eileithyia at the east end; a large Ionic temple of the sixth century B.C., on the Acropolis, the superstructure of which has been destroyed for the Frankish and Venetian fortifications; the *Delion* of Paros, an enclosed *temenos* outside of the city, containing an altar of Apollo and a

small temple perhaps dedicated to Artemis and Leto. Many interesting inscriptions were found in Roman houses, and many vases of island, Mycenaean, and geometric ware in prehistoric dwellings. In the Hellenistic cemetery are remains of bases which bore the singularly decorated sarcophagi published by Loewy (*Arch.-Ep. Mitth.* XI), in which repeated remodellings can be traced. Many graves contain the golden crowns voted by the council and commune. (*Arch. Anz.* 1900, pp. 19-21, 22-24.)

THERA.—**Recent Excavations.**—The results of two months' further work here, in 1899, enable us to trace the history of the place at least from early Hellenistic times to its abandonment, after the eruption of 726 A.D., while certain remains, *e.g.* the supporting wall of the agora, are much more ancient. It was a small and simple town, the size of the theatre, for instance, compared with that of Ephesus, being as 1 to 7½. The often rebuilt *Basilike Stoa* probably derived its name from the early native kings. The worship of the Minyan Charites, of Artemis, Apollo, Tyche, and others, is attested. Graffiti show new varieties of love epithets, ἄριστος, πρῶτος, θαλερός, etc. Public buildings date from the Ptolemies, from Augustus, Gaius, and the second century after Christ. Artemidorus of Perge, son of Apollonius, who was apparently military governor of Thera under the first three Ptolemies, has left a remarkable series of reliefs, altars, inscriptions, etc., including a medallion portrait of himself. They have little artistic or literary merit. (F. HILLER VON GAERTRINGEN, *Berl. Arch. Gesellsch. Winckelmannsfest*, December, 1899; *Arch. Anz.* 1899, pp. 181-192; 5 cuts.)

VARIOUS DISCOVERIES.—In *Berl. Phil. W.* June 2, 1900, several discoveries are mentioned, most of which are recorded elsewhere in this JOURNAL. In **Volo**, near the present fort, several graves have been found. Ten of these have been examined. In one were nine Mycenaean vases and two gold rings. In others, vases, ornaments of bronze and bone, etc., were found. The skeletons lay in bent posture. A dome-grave of Roman times is reported from **Cos**, but this must mean simply some subterranean tomb, not a dome-grave. *Ibid.*, June 9, the discoveries at **Cnossus** are mentioned.

REPRODUCTION OF MYCENAEAN METAL-WORK.—Facsimiles of the so-called goblet of Nestor and of other Mycenaean gold drinking vessels, similar to those of the Vaphio cups, have been made, and reproductions of the inlaid sword-blades are projected, by M. Gilliéron, of Athens. (*Arch. Anz.* 1900, 2, p. 103.)

THE ITHACA OF HOMER.—Professor Dörpfeld advances the theory that the Ithaca of Homer is not the island known by that name at present, but Leucas. The ground for this view is the fact that the present Ithaca contains no remains whatever of the Homeric period of civilization. Homer states that four islands constituted the group, of which Ithaca was the most northern, but does not mention Leucas. Excavations will now be undertaken by Dörpfeld on this island. (*Nation*, June 7, 1900.) This theory is briefly discussed in *Berl. Phil. W.* June 9, 1900.

ITALY

ADRIA.—**Ancient Vessels.**—In digging a canal near Adria, in the valley of the Po, workmen found two ancient vessels in a good state of preservation. In them were vases and various objects of terra-cotta, arms, bronze utensils, and human remains. (*Chron. d. Arts*, March 24, 1900.)

BOSCO REALE.—**Frescoes.**—According to the *Journal des Débats*, March 18, 1900, some remarkable frescoes have been found at Bosco Reale, in the villa in which the silver treasure now in the Louvre and in Naples was discovered. Some seem to be portraits, others represent groups of women in various attitudes, a cithar-player, a seated gladiator, masks, Victories, and decorative designs. In one room were fourteen figures. These are said to be finer than any ancient frescoes yet discovered at Rome or Pompeii. Mosaics, lamps, various utensils, and skeletons were also found. In *Athen.* March 31, the paintings are said to be in distemper.

BOSCOTRECASE.—**A Roman Villa.**—Excavations carried on at Boscotrecase, in the district Setari, from December, 1898, to March, 1899, uncovered part of a Roman villa. The rooms, with the exception of one decorated in the first style, are roughly finished. One contained a mill and a furnace, and another was a *torcularium*. Many small objects were found. (A. SOGLIANO, *Not. Scavi*, 1899, pp. 297–299.)

CARPI.—**A Terramara.**—A *terramara* has been explored 2 km. west of Carpi. Traces of hearths were found at three different levels, and, near these, remains of the plaster used in the interior of the houses. The village was supported upon piles, traces of which remain. The existence of *agger* and *fossa* is clearly indicated, and the discovery of a tile in the *fossa* proves that it was open in the Roman period. The site must have been inhabited till the Roman conquest at the beginning of the second century B.C. Objects of the Roman period were found, as well as the usual objects of bone, horn, terra-cotta, and bronze belonging to the earlier period. (INNO-CENZO DALL' OSO, *Not. Scavi*, 1899, pp. 312–325.)

FABRIANO.—**Early Tombs.**—The contents of several tombs, apparently of the Villanova type, discovered at Fabriano, are described by E. Brizio in *Not. Scavi*, 1899, pp. 370–381 (7 figs.). The date is approximately fixed by a Greek *alabastron* of about 600 B.C. The tombs contained local terra-cottas, ornaments, utensils, and vessels of copper and bronze. Most interesting are the remains of a *biga*,—tires, yoke fastenings, step, ornamented copper plates, etc.

FANO.—**Various Discoveries.**—Antiquities found in the neighborhood of Fano are described by E. Brizio in *Not. Scavi*, July, 1899, pp. 249–262 (7 figs.). It is proposed to form a museum at Fano. The writer publishes two sepulchral inscriptions and several brick stamps, and describes a colossal female head, probably of Cybele. Four marble statues have been discovered, probably portraits of Claudius, Marcellus, and two other members of the imperial family. Besides these four statues, two heads have been found, one of which may be a likeness of C. Caesar, grandson of Augustus. Probably an Augusteum stood on this site. Several fragmentary inscriptions support this idea. At **Fossombrone**, on the site of the ancient **Forum Sempronii**, many flint objects of the neolithic period have been found, besides others that seem to be of an earlier period. From the same locality come two terra-cotta lamps and a seal with the name Aemilia Honorata. At **S. Ippolito**, near **Fossombrone**, various antiquities were found in 1895. Here, and also at S. Pietro in Tomba, were cemeteries of the Novilara type.

LUCERA.—**Inscription and Mosaic.**—In *Not. Scavi*, 1899, pp. 275–276, A. Sogliano gives a sepulchral inscription found in the castle at Lucera,

and describes a mosaic pavement discovered below the piazzetta Nocelli. It is of polychrome geometric pattern, ornamented with Tritons, Cupids, dolphins, etc., and may have belonged to a bath.

MACCIANO. — A Tomb. — A tomb at Macciano, near Chiusi, is Etruscan in form, but most of the inscriptions (fifteen altogether) are in Latin. A passage, with niches, leads to a vaulted chamber. The urns found in the chamber are not earlier than Sulla, and are later than all the others. The passage was evidently used for a long period by various families, and the chamber was not constructed earlier than Sulla's time. (G. F. GAMURRINI, *Not. Scavi*, 1900, pp. 8-10.)

MATERA. — An Early Tomb. — L. Pigorini, in *B. Paletn. It.* 1900, pp. 6-21 (2 pls., 4 figs.), gives a preliminary account of a tomb recently discovered near Matera, and the traces of a primitive settlement at Taranto, both of which belong to the early bronze age, and show a close connection with the terremare of the lower valley of the Po. There was evidently a rapid emigration from the north of Italy to the extreme south.

NAPLES. — C.I.L. X, 568. — An inscription on a sarcophagus, which appears to be the original of *C.I.L. X, 568*, has come to light in Naples. (A. SOGLIANO, *Not. Scavi*, 1899, pp. 497 f.)

NOVARA. — The College of Fabri. — An inscription of the first century of the empire, found at Novara, is a dedication to C. Torullius-Fuscus, *magister* of the college of *fabri*. (A. TARAMELLI, *Not. Scavi*, 1899, pp. 475-476.)

ORISTANO (SARDINIA). — Prehistoric Remains. — In *B. Paletn. It.* 1899, pp. 109-177 (10 figs.), Tito Zanardelli gives an exhaustive description of prehistoric remains near Oristano in Sardinia, where there is abundant evidence of a population of the stone age. The article describes in detail *nuraghi* and *domus de gianas*, and enumerates objects of obsidian and terra-cotta found in or near them.

PENTIMA. — A Priestess of Ceres. — The discovery at Pentima of a sculptured tomb, with an inscription recording a priestess of Ceres, suggests the possibility that the ruined temple near by was a temple of Ceres. (A. DE NINO, *Not. Scavi*, 1899, pp. 399 f.)

PERUGIA. — Etruscan Sculptures. — At Perugia, in the ruins of an Etruscan tomb, five travertine urns have come to light. One, having a length of 1.12 m., is elaborately carved; the front is draped, and, at the corners, legs in high relief are decorated with winged sphinxes; in the middle is a projecting footstool; on the lid is the recumbent figure of a richly dressed woman. Another urn is similar, but less elaborate. A third has a brief inscription. The two others are plain and without inscription. (A. LUPATELLI, *Not. Scavi*, 1899, pp. 263-265; 1 fig.)

POMPEII. — Excavations: July-December, 1899. — The following summary is taken from the reports of A. Sogliano in *Not. Scavi*, 1899: In July, excavation was continued west of the Basilica, on the southern side of the area where was the Temple of Augustus, and toward the western extremity of the south side of Reg. VIII, Ins. II. A new roof (a restoration of the ancient roof) was placed over the apodyterium of the men's bath in the Terme Stabiane. (*Not. Scavi*, pp. 272 f.) In August, the buildings south of the Basilica were cleared, and in the area of the Temple of Augustus foundations of walls were brought to light. In the Temple of Jupiter, in the

northern part of the eastern cella wall, a door was found, which was walled up in antiquity. This opens into a room, the floor of which is 2.9 m. below the cella floor. Bones of animals were found here. West of this room is another, similar to the first. The excavation of the space adjoining the western peribolus wall of the Temple of Apollo confirms Mau's theory that the *paries privatus coloniae Veneriae Corneliae* of *C.I.L.* X, 787 is the western wall of the peribolus. In September work was continued south of the Basilica, and the passage between the Macellum and the Temple of the Lares was cleared. (*Not. Scavi*, September, 1899.) In October the area behind the Temple of the Lares was excavated, and several rooms were cleared, having furnaces, counters, water channels, etc. Excavation was carried on also south of the Basilica; in Reg. V, Ins. IV and V; and outside of the town, at the north. (*Not. Scavi*, pp. 388-392; plan.) During November excavation was carried on south of the Basilica and outside the north wall. In the latter place were found, besides numerous parts of ornamental bronze furniture, a well-executed bronze mask of Paris, a small term with the head of Cupid, a head in stucco, and a bronze syrinx of eleven pipes. (*Not. Scavi*, pp. 439-448; 11 figs.) In December work was continued south of the Basilica and on the Barbatelli estate, north of the town wall. Near the amphitheatre a bronze figurine was found, representing an actor of *φλύακες*. In the removal of the marbles deposited in the rooms behind the Temple of Vespasian, ten fragmentary inscriptions were discovered. The exploration of the drains was begun. (*Not. Scavi*, pp. 493-497; 2 figs.) In January, 1900, the clearing of the drains was continued, as well as the excavation south of the Basilica and outside the northern wall of the town. In *Not. Scavi*, 1900, pp. 27-31, A. Sogliano describes, with the aid of a plan, the recently discovered remains west and southwest of the Basilica, surrounding the area of the Temple of Augustus. In *Not. Scavi*, 1899, pp. 339-358, Sogliano describes the results of excavations in Reg. V, Ins. IV and V between January 31 and April 17, 1899, with detailed description of the paintings found. (Cf. *Not. Scavi*, 1899, p. 234.)

ROME.—Excavations in the Forum.—In *Cl. R.* June, 1900, Thomas Ashby, Jr., gives a brief description of the work at the Forum since the middle of November, 1899. Before the *Curia* (S. Adriano) a mediaeval cemetery was removed and the rough travertine pavement of the *Comitium* of the latest period was uncovered. In the church the pavement is nearly intact, and much of the decoration of the walls remains. Several inscriptions were found in these excavations. A round well of some depth was found near the *lapis niger*. At the southwest end of the rostra of Julius Caesar a fine specimen of the earlier travertine pavement of the Forum has been found. It continues under the supposed site of the *Milliarium Aureum*, which can hardly have occupied this position. The *Basilica Aemilia* probably had fifteen pilasters in the front line, about 17 feet apart. At each end was a wing, and the total length was at least 93 yards. Between these wings was a marble paved footway 6 yards wide, approached from the road by two steps, two more steps leading into the Basilica. The *tabernae* were arranged against the outer wall of the central hall, which had a nave 53 feet wide and two aisles each 14 feet wide. The fine pavement of colored marble is in some places well preserved. Fragments of the columns of Chian marble have been found. The twenty-four columns of Phrygian

marble in S. Paolo were not taken from the *Basilica Aemilia*. Two fragments of an inscription relating to a restoration by Tiberius make it doubtful whether the inscription in honor of Lucius Caesar belongs to the *Basilica Aemilia*. In a cloaca in a room on the south side of the *Atrium Vestae* was found a heap of 397 gold coins, all (except one of Constantius II) of the latter half of the fifth century, 345 being coins of Anthemius (468-472 A.D.). They were probably hidden in 472 A.D. The way in which the walls were rebuilt and the pavements raised at different times has been strikingly shown. In the northeast corner of the building, a small altar of concrete has been found. Beyond the southeast end of the *Atrium Vestae* a large brick building has been found, the remains of which bear out Lanciani's theory that the site was occupied by the *Porticus Margaritaria*. Various periods of the building are distinguishable. The excavation of the buildings upon the northeast side of the *Sacra Via*, between it and the Basilica of Constantine, has been finished. They belong in the main to the *Horrea Piperataria* of Domitian. They consisted of square chambers with a colonnade in front. Near the travertine bases of the colonnade two wells were found, one of the republican period, the other mediaeval. In the first were, among other things, bones of animals which had been sawn in pieces (the refuse of a butcher's shop), in the second were some late architectural fragments. The pavement of the *Sacra Via* has been exposed at various levels and belonging to different dates. Other reports of the excavations in the Forum are to be found in the *Athen.* February 3, March 3 and 17, April 14, May 12, and June 16 ('Notes from Rome,' R. Lanciani); the *London Times*, February 13 (R. Norton); the *Nation*, April 12 (R. Norton); the *Nineteenth Century*, April, 1900 (G. Boni); *Not. Scavi* for each month, and frequently in the *Popolo Romano* and other newspapers. In *Arch. Anz.* 1900, pp. 1-10, is a report (with plans) by Ch. Huelsen, dated January, 1900. Further accounts of the excavations of 1899 are contained in *Not. Scavi*, July, 1899, pp. 265-267 (G. Boni); *ibid.* pp. 267-271 (G. Gatti); August, pp. 289-293 (G. Gatti); September, pp. 325-333 (G. Boni); *ibid.* pp. 333-338 (G. Gatti); October, pp. 384-387 (G. Gatti); November, pp. 431-437 (G. Gatti); December, pp. 486-489 (G. Boni); *ibid.* pp. 489-492 (G. Gatti). The reports by Gatti are chiefly concerned with inscriptions.

Among the inscriptions from the Forum are the following: Over the ruins of the Basilica Aemilia was a Lombard or Byzantine house, the threshold of which was a block of marble from the Regia containing the second tablet of the *Fasti Capitolini*. Six lines of two columns remain, of which the left registers the names of the officials for the year 380 B.C., the right those of 331-330.

Left Column:

L · Valerius [*L · f · L · n · Poplicola*] *V* [*L · Aemilius Mam · f · Mam ·*] *n · Mamercin · VI* | *P · L · f · [Poti]tus Poplicol · II Cn · [Sergius] ... Fiden · Coxo III* | *Ser · Cornelius P · f · M · n · Malugin · IIII Ti · Papiri[us] ... Crassus tr · mil · Mugillanus II* | *C · Sulpicius M · f · Q · n · Peticus* | *T · Quinctius T · f · L · n · Cincinnat[us Capitolin · dict · rei gerund · causa]* | [*A · Sempronius Atratinus mag · equit ·*] |

Right Column:

Qui postea [C]audinus appell · [est] | *C · Valerius L · f · L · n · Potitus M · Claudius C · f · C · n · Marcellus* | *Cn · Quinctius T · f · T · n · Capitolin · dict ·* |

*clavi fig · c · | C · Valerius L · f · L · n · Potitus postea quam cos abiit mag · eq · ·
L · Papirius L · f · N · Crassus II L · Plautius L · f · L · n · Venno |*

The tablet for 380 B.C. does not show six military tribunes, as Livy, nor eight as Diodorus declares, but nine. The statement in the year 331, *dictator clavi figendi causa*, serves to correct Livy 8. 18. (*Arch. Anz.* 1900, p. 6.)

Among the inscriptions from the area of the Basilica Aemilia are a number on *cippi* which, having been employed for inscriptions of an earlier date were finally inscribed with a recognition of Petronius Maximus, who was Prefect of the City in 419–421 A.D. (*C.I.L.* VI, 17–49.) In 433, he held his first consulship, his second in 443, and in 455 on the death of Valentinian III he was proclaimed Augustus. His inscription, which occurs on several *cippi*, reads: *Petronius Maximus | v(ir) c(larissimus) iterum prae-f(ectus) urb(is) | curavit*. On one of these the earlier inscription is: *dedic(ata) X|[C].Vettio Grato Attico Sabiniano | C. Asinio Lepido Praetextato co(n)s(ulibus)*. This gives the year 242. On another appears the following: *Curantibus | Hermen et Gelasino | adiut proc item | Crescente adjut tabul | par t s c*. Here is a reference to the *adiutores procuratoris* and *adiutor tabulariorum*. The last line is unintelligible. On a fourth pedestal is a dedication to the Emperor Valens. See *Nouvelle revue historique du droit*, 1899, p. 397. (*B. Com. Roma*, 1900, p. 224.)

On a pedestal of marble found in the area of the Basilica Aemilia is the following inscription: *Vestae donum pr[o salute] | Imp · M · Antonini Pii Au[g · pont · max ·] | trib · potest · xvi cos · iii [p · p ·] | Eutyches lib · fictor cum fili[is] | voto sucepto |*. (Cf. *C.I.L.* V, 786.) The date is 213 A.D. (*B. Com. Roma*, 1900, p. 234.) On the north side of the Forum was found a rectangular pedestal of white marble with the inscription: *Numini deae | Viennae ex d · d · | M · Nigidius Paternus | II viral · pon · cur · |* The dedication is to the protecting divinity of Vienne. See *C.I.L.* XII, 5687, 43; 5684, and pp. 218, 219. (*B. Com. Roma*, 1900, p. 237.)

An epistyle found in the Via Sacra has an inscription with letters filled with bronze. It reads: *· · toninus imp · II · · · · · stituit*. It may refer either to Marcus Aurelius or Pius, but to what building it belonged is uncertain. (*Arch. Anz.* 1900, p. 9.)

On the south side of the Basilica Aemilia near the Temple of Faustina three large slabs were found which bear the following inscription: *L(ucio) Caesari Aug[u]sti f(ilio) divi n(epoti) principi iuventutis co(n)s(uli) desig(nato) [c]um esset ann(os) nat(us) XIII, aug(uri), senatus*. It is uncertain to what building this belonged. The inscription is important as referring to Lucius Caesar, son of Julia and Agrippa. He and his brother Gaius were adopted by Augustus but died in their youth. See *Mon. Ancyr.* XIV, Lat. II, 46 to III, 6. (*Arch. Anz.* 1900, p. 6.)

In the excavations along the Via Sacra a new fragment of the Acta of the Fratres Arvales has been discovered. This belongs with a fragment already published in *C.I.L.* VI, 2109. The following gives the fragments as restored by Henzen in *Acta Fr. Arv.* and Gatti in *Notizie degli Scavi*: *..... ati caesp(ite) ante ia[n]uam]... coniunct lacte iocinfa anis super caesp(ite) fecer(unt) ; ite[m] reversi tis irib praepant. Deinde in[aedem intraver]unt et [ollas precati sunt et contig(erunt) pul]tes praeca[t]i colleg(ae) et mag(ister) et f(lamen) ... bl . duos a ollas (?) acc[e]p(erunt) et ianuis a[p]ertis per clivum ... rlarum pe [de]inde osteis reclusis su[b]-*

se[l]l(is) marmor(eis) conseder(unt) [et panes laureatos per fa]mil(iam) et offic(ium) divis(erunt); item de aede exie[r(unt) et] ante aram [thesauros dederunt e]t flam(en) Donatus duos colleg(as) su[mp(tis) a]d frug(es) peten[das misit et m]ag(ister) et [f]lam(en) cum scyphis vin[. . . . rever]si cum fru[gibus dextra dederunt, l]aeva frug(es) acc(eperunt). Deind(e) carn(en) [trip(oda-verunt), dei]nde ad (aram) fe(cerunt). Deinde corbul. cum . . . v . . . [de]inde in aede reversi [s]ign(o) offic[i]o dato publici introierunt.

The second column is completed by reference to the text of the year 224 A.D. C.I.L. VI, 2107. [Fratres Arvales in luco deae Diae convenerunt per A. Aelium Se]cundinum m[ag]istrum et ibi immolaverunt quod . . .] aliam arborem s[acri luci . . . lustr(um) miss(um) (suove[taurilibus maioribus : item . . .] mal. alb. numero II, Iu[noni] deae diae (?) . . . item ad ar(as) temp(orales) Ian[o patri arietes II, Iovi verbes II altilaneos, Marti arietes II, sive deo] sive deae ver[b(eces) II, Virginibus divis oves II, Famulis divis verbes II, La]rib(us) verb(eces) II, M[atri Larum oves II, Fonti verbes II, Florae oves II, Summano patri] verbe(ces) atr(os) II, V[estae matri oves II, Vestae deorum dearumque oves II, etc. . . . in] tetrastulum . . . De domo P. A[eli Secundini] magistri . . .] . . . ta sacra . . .

The date is uncertain but P. Aelius Secundinus was *magister collegii* in 219. (Not. Scavi, 1899, p. 268.)

Near the temple of Antoninus and Faustina has been found a fragment of the edict of Tarratinus Bassus (368 A.D.), other fragments of which are published in *B. Com. Roma*, 1891, p. 345. It reads: . . . ensis [Lau]rentius tab[ernarius] | de Sicinino | Aeliograte[s] Secundense[s] . . . Tiburtin[us] Danubi[us] Ursacius. (*B. Com. Roma*, 1900, p. 230.)

Near the Church of S. Adriano a large pedestal of marble has been found on which is a dedicatory inscription: *Marti invicto patri | et aeternae urbis suae | conditoribus | dominus noster | imp(erator) Maxentius P(ius) F(elix) | invictus Aug(ustus)*. On another side the following: *dedicata die XI kal(endas) Maias | per Furium Octavianum v(irim) c(larissimum) c(uratorem) a(edis) s(acrae)*. The inscription dates in the fourth century after Christ. It should be associated with that found in the Basilica Julia in 1849, C.I.L. VI, 1220, 10300 and 31394: *censurae veteris pietatisque singularis | domino nostro [Imp(eratori)] Maxentio*. The date, April 21, is the anniversary of the founding of the city. The fondness of Maxentius for Romulus and Ancient Rome leads Huelsen to suggest that he may have set the black pavement or *lapis niger*. *Furius Octavianus* may be a descendant of C. *Furius Octavianus*, *consul suffectus* under *Elegabalus* or *Severus Alexander*. See tablet of bronze, C.I.L. IX, 338. This pedestal dedicated to Maxentius had been used for another purpose, *i.e.* for a dedicatory inscription to some emperor by the *fabri tignuarii*. One side bears the date August 1st, 154 A.D., and another side contains a list of the *Magistri quinquennales collegi fabrum tignuvariorum*, the decurions of the *collegium*. (C.I.L. VI, 1060; Cf. C.I.L. VII, 10300.) The dedication reads: *Dedicata K(alendis) Aug(ustis) | L(ucio) Aelio Aurelio Commodo | T(ito) Sextio Laterano co(n)s(ulibus)*. (*B. Com. Roma*, 1900, pp. 217-220.)

A large marble architrave found near S. Adriano has this inscription:

CTATIWN | [τῶν τν] ΠΙΩΝ · ΤΩΝ · ΚΑΙ · ΚΛΑΥΔΙΟΤΤΟΛΙΤΩΝ ·
 CΥΡΙΑ ΠΑΛ [αω] ΤΕΙΝΗ | ΜΟΝ . . . ΤΗΤΑΤΡΙΔΙ

Here is a reference to the *stationes municipiorum* on an inscription in the Forum; cf. the one found in 1882. (*B. Com. Roma*, 1882, p. 157.) τὴν στατίωντα [τῶν . . .] ιανῶν φιλοσεβάστων καὶ φιλορομαίων ἀνεγείρασα σὺν τῷ πα[τρὶ κόσμῳ τῇ ἐ]αυτῆς πατρίδι ἀνέθηκεν. The reference apparently points to the *statio* which the Τύριοι of Syria Palaestina had in Rome. (*B. Com. Roma*, 1900, pp. 241-243.)

Three pedestals were found together near S. Adriano with inscriptions of the fourth century after Christ, dedication to M. Aurelius Valerius Maximianus (cf. *C.I.L.* VIII, 2752, VI, 1140, 1161, 1162, 1166, 1167), to Constantine, and to Theodosius as *extinctor tyrannorum ac publicae securitati[s] auctor*. (*B. Com. Roma*, 1900, pp. 220-222.) A fragment of the *Fasti Consulares* has been found, which before its mutilation contained the list of the *tribuni militum (consulari potestate)* from A.U.C. 374 to 378, and the list of consuls from A.U.C. 422 to 433. (*Athen.* March 17, 1900.) The results of the demolition of the church of Santa Maria Liberatrice have been, as yet, chiefly interesting to students of Christian archaeology. A great *cloaca*, which once crossed the site of the Basilica Aemilia, but was filled up after the basilica was built, has been discovered. (*Athen.* June 16, 1900.)

Acquisitions of the Museo Preistorico.—A fine bronze sword, with its scabbard, found in the Pre-Roman necropolis of Acciajeria di Terni, has been placed in the Museo Preistorico di Roma. The same museum has acquired the two most important private collections of prehistoric objects of the Provincia di Roma,—those of Adolfo Klitsche de la Grange and Michele Stefano De Rossi. (*L. FIGORINI, B. Paletn. It.* 1899, pp. 315-316; 1 fig.)

An Important Building.—In digging for the foundations of the new façade of the Palazzetto dall' Aquila, on the north side, facing the Corso Vittorio Emmanuele, remains of a classic building have been found in remarkably good preservation. The part already excavated shows two sides of a peristyle, with the lower part of the bigio columns *in situ* on the base, and the upper lying close by. The pavement of the portico is inlaid with costly breccias. A parapet, three feet high, fills up the intercolumniations (except the middle ones, giving access to the open court), and it is covered with mural paintings representing a pleasure party in a boat, a racing quadriga, and other scenes. The middle of the south wing of the peristyle is occupied by a fountain, the supports of which, shaped like *trapezophoroi*, are *in situ*, while a great part of the basin was found lying on the floor of the atrium. A fine bust of the elder Faustina was found near the fountain, as well as a section of the entablature of the peristyle. (*R. LANCIANI, Athen.* May 12, 1900.)

Discoveries near the Via Latina.—Near the second milestone of the Via Latina the following objects were found: a portrait head of Socrates, the funeral stele of an Aurelius Sabinus, and two lead pipes inscribed with the names of a Caecilius Felicissimus and of a Demetrianus. It has also been found that the "Tomba degli stucchi," on the right side of the road, was built about 160 A.D., just in the middle of a beautiful house of the first century, which must have been partially demolished for that purpose. The rooms left standing on either side and at the back of the tomb contain a beautiful and well-preserved set of mosaic chiaroseuro pavements, while the walls show traces of their rich marble veneering. (*R. LANCIANI, Athen.*

June 16, 1900. In his 'Notes from Rome' in the *Athen.*, referred to under 'Excavations in the Forum,' Lanciani mentions a variety of lesser discoveries at and near Rome, besides calling attention to recent writings on Roman monuments.)

Discoveries under S. Cecilia.—In the restoration of the pavement and crypt of S. Cecilia in Trastevere, remains have been found of a republican house, restored in the first half of the second century after Christ; of the restoration of the church by Paschal I in the eighth century; and of a later restoration in the eleventh or twelfth century. The ancient house extended outside the limits of the church. A fine mosaic pavement has come to light, two sculptured sarcophagi were found, and forty-one inscriptions, besides a number of brick stamps, one of which is new. One of the inscriptions records the enlargement of the pomerium by Vespasian and Titus; the date of the stone is 75 A.D. (G. GATTI, *Not. Scavi*, 1900, pp. 11-27; O. MARUCCI, *B. Com. Roma*, 1900, pp. 270-279.)

Inscriptions on Urns.—The following inscription is engraved on a cinerary urn found on the Via Ostiensis at Rome: *Dis Man(ibus) | C. Tullius Hesper(us) | aram fecit sibi ubi | ossa sua coiciantur | qua si quis violaverit aut inde exemerit opto ei ut cum | dolore corporis | longo tempore vivat | et cum mortuus fue|rit inferi eum non | recipiant.*

On another cinerary urn found in the same place appears: *D(is) M(ani-bus) | C. Tullio | Casto v(ixit) a(nnis) XXXII | Marcia Pietas | coniugi | carissimo f(ecit) | cum quo vixit | ann(is) (quinque) m(ensibus) (novem) d(iebus) sex.* (*Not. Scavi*, 1889, p. 271.)

SATURNIA.—**The Ancient Necropolis.**—In *Not. Scavi*, 1899, pp. 476-486 (7 figs.), L. A. Milani gives a preliminary report of the excavations which Riccardo Mancinelli is conducting at the ancient Saturnia in southern Etruria. The necropolis on the right bank of the Albegna is shown by vase fragments to have been of the sixth and fifth centuries B.C. In one tomb, above the Etruscan stratum, was another, containing the remains of fifty skeletons and objects of the beginning of the fourth century after Christ. The earliest date is assigned to a single large tumulus on the left bank of the Albegna, containing objects of the eighth and seventh centuries B.C.,—terra-cottas, bronzes, and iron implements. Within the town only one trench has been dug, and two bases, with long dedicatory inscriptions, were brought to light.

SCAFATI.—**A Roman Villa.**—A portion of an ancient villa has been excavated at Scafati, near Pompeii. A part of a peristyle has been cleared, with the surrounding rooms, and small objects have been found in abundance, including gold ornaments, silver statuettes of Isis-Fortuna and Venus of good workmanship, and other objects of silver, all forming the equipment of a *lararium*, a bronze bull on a pedestal, a small bronze bust, and many inscribed amphorae. (A. SOGLIANO, *Not. Scavi*, 1899, pp. 392-398; 8 figs.)

SICILY.—**Orsi's Discoveries.**—During the month of May, 1899, P. Orsi made a study of the ancient Βρικυνία in Sicily (Thucyd. V, 4), the site of which is a hill north of Scordia. At Agnone about thirty tombs have been opened, containing vases, flint knives, etc., of the first Sicel period. One tomb illustrates the transition between the first and second periods. On the estate of Baron Riso, architectural fragments, coins, etc.,

have been found, indicating that there was here a small settlement in Roman times. The name of the estate, *Murgo*, may be a survival of the *Murgantia* of Livy XXIV, 27. In a Sicel necropolis, south of **Lentini**, geometric vases have been found, some of them direct copies of Dipylon vases. Northeast of the town is an immense Greek necropolis, containing thousands of graves, many of them still intact. One hundred and thirty, which were opened, yielded only insignificant vases and strigils of iron or bronze. At **Valsavoia**, near Lentini, graves have been opened containing objects of the first Sicel period, or of the first two periods in the same stratum, or, in some cases, objects of the third period in a stratum above that of the two earlier periods. (P. ORSI, *Not. Scavi*, 1899, pp. 276-279.)

In *Not. Scavi*, 1899, pp. 402-418 (14 figs.), Orsi describes twenty-four tombs excavated in June, 1898, at **Ragusa** in Sicily, in the necropolis of Hybla Heraea. The objects found, including fragments of sculpture, Greek vases, and local geometric ware, are not later than the end of the sixth century B.C. Orsi believes that the Sicel Hybla was at Ragusa Inferiore, and that toward the end of the sixth century B.C. a Greek settlement, perhaps from Syracuse, was established 2 km. distant at the modern Pendente. There, not later than the beginning of the fifth century, the Greeks were destroyed or driven away.

In November, 1897, Orsi explored a cave on Monte S. Nicolò, near **Buscemi**, Sicily, which had been used in antiquity as a sanctuary, and in the Middle Ages as a dwelling. He found three rectangular rooms. In the walls of two of these were tablets or niches cut in the rock, which originally contained inscriptions in Greek. Many still remain in part, and two in a fairly complete condition. One has the names of the consuls of the year 35 A.D. It appears that the sanctuary was maintained by a college under the direction of an ἀμφίπολος and ἱεροποιοί, in honor of certain female deities (Demeter and Cora, or possibly nymphs), Artemis Anassa, and of Apollo. The tablets contained records of their offerings and vows. (P. ORSI, *Not. Scavi*, 1899, pp. 452-471; 11 figs.)

Under the title 'Funde und Forschung,' E. Petersen, in *Röm. Mitth.* 1899, pp. 280-302 (2 figs.), summarizes and discusses recent discoveries in Italy and Sicily, calling attention particularly to Orsi's work in Sicily.

TURIN.—**The Ancient Theatre.**—Remains of the ancient theatre of Augusta Taurinorum have come to light in the area of the Palazzo Vecchio, Turin, on the northern side of the ancient town. (A. TARAMELLI, *Not. Scavi*, 1900, pp. 3-6.)

VARIOUS MINOR DISCOVERIES.—In *Not. Scavi*, 1899, minor discoveries of pre-Roman antiquities are recorded at **Borrello**, in the district of the Frentani, at **Larna dei Peligni** (pp. 359-362), at **Marsciano**, near Perugia (pp. 283-289; 6 figs.), and at **Paganica** (pp. 358 f.). Discoveries of similar nature are mentioned in *B. Paletn. It.* 1899, at **Terra d' Otranto** (pp. 178-182; 3 pls.; 1 fig.; dolmens and isolated columns); **Rimini** (pp. 21-24; fig.), and **Viadana** (pp. 1-6; 2 figs.). From **Volterra** and the neighborhood the discovery of tombs from the eneolithic period to the fifth century B.C. is reported in *Rend. Acc. Lincei*, 1899, pp. 499-506. Minor discoveries of antiquities of Roman times are mentioned in *Not. Scavi*, 1899, at **Acqui** (pp. 419-428; 4 figs.), **Aosta** (pp. 245-248; plan), **Bracciano** (pp. 428 f.; fig.), **Bussolengo** (p. 248), **Cumae** (p. 438), **Giulianova** (1900,

p. 7), **Isola del Gran Sasso** (1899, pp. 262 f.), **Savigliano** (pp. 473-474), **Sulmona** (pp. 274 f.), **Taranto** (pp. 302-305, 400-402), **Teramo** (pp. 382 f.), **Terracina** (p. 272), **Tusa** in Sicily (pp. 500-502; 2 figs.), **Velletri** (pp. 338 f.). At **Moncalvo**, near Monferrato, tombs of the time of the barbaric invasions were found (*Not. Scavi*, 1899, pp. 281-283). In *Not. Scavi*, 1900, pp. 32-39 (12 figs.), V. di Cicco describes various antiquities seen in Lucania.

SPAIN

ELCHE.—**A Mosaic Floor.**—A well-preserved mosaic, 4 m. square, was found near Elche, the ancient Ilici, in September, 1899. It is largely geometric patterns, but has a centrepiece of a dog chasing a rabbit, and some small panels of doves. It is from about 200 A.D. The inscription in one corner reads: *in h(oc) praedi(o) s(alvus) vivas cum tuis omnib(us) multis annis.* (K. WERNICKE, Berl. Arch. Gesellsch., November, 1899, *Arch. Anz.* 1899, p. 198; cut.) At the March meeting of the Berl. Arch. Gesellsch., E. Hübner gave, as an amended reading of the inscription, *in h(is) praedi(i)s vivas*, etc., instead of *in h(oc) praedi(o) s(alvus) vivas.* (*Arch. Anz.* 1900, p. 21.)

FRANCE

AVIGNON.—**Athenian Decree of Proxeny.**—At Avignon, in the museum, is a fragmentary decree from the Nani collection at Venice. Th. Reinach has shown that this is an Athenian decree, granting proxeny to three Megarians, dated June 2, 339 B.C. The mover of the decree was the orator Demosthenes (*C. R. Acad. Insc.* 1900, pp. 35 f.). The decree is published and discussed by Th. Reinach, *R. Et. Gr.* XIII, 1900, pp. 158-169; pl. ii.

DAUPHINÉ.—**Gallic Cemeteries of Leyrieux, Rives, and Genas.**—In *C. R. Acad. Insc.* 1899, pp. 768-771, E. Chantre describes the Gallic cemeteries of the Département de l'Isère. That at Leyrieux was accidentally discovered in 1864. Only one tomb could be studied. It was made of large unhewn stones, and contained vases, iron swords, lances of bronze and iron, fragments of belts and breastplates of bronze with stamped designs, as well as various lesser objects. The contents of the tombs at Rives and Genas were similar to what was found at Leyrieux. In each place some eight tombs were studied. These tombs may be those of the Allobroges, who inhabited this region. Various isolated objects found in this part of the country probably belong to the same people and the same period.

POIRON (DEUX SEVRES).—**A Mound containing a Fossil.**—In *R. Arch.* XXXVI, 1900, pp. 281-285 (fig.), G. Chauvet, after some remarks on the "serpent's egg," describes a mound discovered at Poiron in which was no tomb, but a cavity or stone box containing a fossil sea-urchin. The mound consists chiefly of the stone of the neighborhood. There are no fossil sea-urchins found in the region.

THÉROUANNE.—**The Morini.**—An inscription containing the name of Gordian III and that of the Civitas Morinorum has been found in the substructions of the Cathedral of Thérouanne: [*Imp(eratori) Caes(ari) d(omino) n(ostro) M(arco) Anto[nio] Go[r]dia[n]o Pio Fel(ici) Aug(usto) [p]ont(ifici) max(imo) tr(ibunicia) p(otestate) III co(n)s(uli) II p(atri) p(atriciae), [civi]tas Morinor(um).*] The number of the *tribunicia potestate* and that of the consulate do not correspond with those ordinarily given, for the fourth *tribunicia potestate* corresponds with the second consulate. The name Morini is very

rare in Latin epigraphy. A military diploma of England in the British Museum mentions a *cohors prima Morinorum* stationed in Britain in 103 A.D. (C.I.L. III, p. 864). A copy of an inscription containing the words *Colonia Morinorum*, found in the manuscripts of Pighius, which was admitted by Gruetzer and Henzen, but placed by Brambach among the *falsae* (I.R. p. 360, note 9), may be genuine. (B. Soc. Ant. Fr. 1899, p. 384.)

GERMANY

WORK OF THE GERMAN ARCHAEOLOGICAL INSTITUTE IN 1899.—The annual report of the Institute records substantial progress and great activity in all departments of its work (*Arch. Anz.* 1900, pp. 57–60). The report is followed (pp. 60–62) by a sketch of archaeological discoveries in 1899.

ACQUISITIONS OF THE COLLECTIONS OF ANTIQUITIES IN GERMANY. I. WEST GERMANY.—The West Germany museums of antiquities report various acquisitions and discoveries, of all epochs, prehistoric to mediaeval. The most important are perhaps those at **Mainz, Regensburg, Metz, Carlsruhe, Aschaffenburg, Mannheim, Wiesbaden, Stuttgart, Trier, and Bonn.** These are for the most part interesting on account of the light they throw upon the dates and extent of the Roman settlements. At Trier, pottery of the Hallstatt period was found. (F. HETTER, *Arch. Anz.* 1900, pp. 25–32.)

II. DRESDEN, 1897–98.—The acquisitions are as follows: Seven pieces of sculpture, chiefly Greek, the most important a Parian marble head of Polyclitus's young victor with wreath, next in merit to the Westmacott copy; a piece of Hellenistic mosaic pavement from Syria; thirty-one numbers of vases, terra-cottas, and bronzes, including a "geometric" bowl similar to one in Copenhagen, with scenes from a festival, a protocorinthian jug with fish decoration and a small jug of protocorinthian shape with early Corinthian decoration suggestive of the Clazomenae sarcophagi. (G. TREU, P. HERRMANN, *Arch. Anz.* 1900, pp. 106–113; 11 cuts.)

ARCHAEOLOGICAL INVESTIGATIONS IN THE MIDDLE RHINELAND.—In *Berl. Phil. Woch.* February 17, 1900, pp. 219–222, C. Mehlis writes that twenty-four hitherto unknown Pre-Roman and Roman fortifications have been discovered and many more investigated in northern Alsace and the southern Palatinate. The discoveries on the left side of the Rhine were confirmed by those on the right side. So-called prehistoric fortifications in these regions are of four classes: (1) Pre-Roman places of refuge, (2) Post-Roman places of refuge, (3) late Roman stations for the protection of roads and crossings of rivers, (4) late Roman *speculae* or watch towers. A fifth class of mediaeval or Frankish works also exists.

HALTERN A. D. LIPPE.—A Roman Settlement.—In the *Sitzb. Berl. Akad.* 1900, pp. 303–316 (plan, 2 figs.), is a description by C. Schuchhardt of the remains of an extensive Roman fort and settlement on and near the St. Annaberg, near Haltern. The excavations were begun in June, 1899. Besides remains of walls, objects of bronze, iron, glass, and terra-cotta (especially *terra sigillata*) were found, as well as bones and a few coins. The site appears to be that of the important Roman station Aliso. The same identification was supported by O. Dahm at the May meeting of the Berl. Arch. Gesellsch. He also identifies an earthwork in the Taunus,

two days' march from Mainz, with a camp formed, as was Aliso, by Drusus, in 11 B.C., abandoned in 9 A.D., and subsequently restored. (*Arch. Anz.* 1900, pp. 101-103.)

AUSTRIA-HUNGARY

CARNUNTUM.—*Roman Magazine.*—In *Berl. Phil. Woch.* June 9, 1900, p. 735, the discovery at Carnuntum of a Roman magazine for arms and provisions is described from the report in the *Anzeiger* of the Vienna Academy.

DECHANTSKIRCHEN.—*Inscriptions.*—In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 78-80 (2 figs.), Hermann Riedl republishes *C.I.L.* III, 5518 and 5519, with the sculptural decoration of the gravestones.

NOTES FROM THE LEITHA DISTRICT.—In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 1-18 (22 figs.), W. Kubitschek publishes some notes from this district which are concerned with Roman sepulchral and votive inscriptions. These have some bearing on the local topography.

EPIGRAPHICAL NOTES FROM SLAVONIA AND SOUTHERN HUNGARY.—In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 96-104 (21 figs.), H. Liebl publishes some votive inscriptions, legionary *tegulae*, a male torso (Hermes?), and an Egyptian sepulchral relief with a representation of Osiris, Nephthys, and Isis upon it. *C.I.L.* III, Suppl. 10264, 10267, 10648 are republished, and there are reports with some corrections of 10268, 10270, 10271, 10272, 10273, 12662, *C.I.L.* III, 16298, 11461, and Suppl. 14040.

ANTIQUITIES OF DALMATIA AND PANNONIA.—In the *Vjesnik* of the Archaeological Society of Agram (Zagreb) IV, 1899-1900, Josip Brunšmid gives (pp. 21-42; 21 figs.) an account of the site, history, and remains of the Colonia Aelia Mursa (in Croatian). *Ibid.* pp. 181-201 (30 figs.) the same author continues his 'Archaeological Notes from Dalmatia and Pannonia' (Croatian). *Ibid.* pp. 81-155, he describes coins of Roman and later times found in Croatia and Slavonia (Croatian). *Ibid.* pp. 172-176 (2 figs.), Josip Purić describes (Croatian) 'Excavations in the Roman Cemetery in Stenjevec.' Other articles in this number describe prehistoric objects found and discuss matters of mediaeval history.

GREAT BRITAIN

ROMAN BRITAIN IN 1899.—In *Athen.* January 31, 1900, F. H. gives a brief summary of the work done in excavating Roman remains in Britain. That at Silchester is the most important and extensive. At Caerwent a beginning has been made, at Wroxeter a beginning is planned. At the fort at Wilderspool some interesting small finds, "Samian" ware, etc., have been made, but the fort itself is not clearly understood. At Melandra Castle the gates, walls, and turrets have been fixed and part of the central building dug out. At Ribchester the fort is found to have been of normal size and construction, though a walled passage leading through the south corner turret and a wooden gate leading out through the north corner are peculiar. On Hadrian's Wall the only excavations have been in Cumberland, at Burgh Marsh and Drumburgh Hill. On the Scotch Wall two small earthen forts at Camelon, near Falkirk, have been explored. Some of the "Samian" ware is of a kind that points to the first century after Christ. It may belong to the campaign of Agricola, who planted forts between the

Clyde and the Forth. In *Athen.* March 10, 1900, is a report of a paper read by H. T. Owen before the British Archaeological Association, February 21, describing remains of a Roman bath found in Valle Crucis Abbey.

CHESTER.—Recent Roman Finds.—In *Reliq.* 1900, pp. 111–114 (3 figs.), R. Newstead records some excavations at Chester. In 1898, a Roman building, probably a *lararium*, was found, and in the same neighborhood a number of small objects of various kinds. The most interesting was a small slip of bronze, with the inscription *utere felix*. In the autumn of 1899, some Roman drains were found and some lead pipe with the inscription *Imp(eratore) Vesp(asiano) viiii T(ito) Imp(eratore) vii co(n)s(ulibus) Cn(aeo) Iulio Agricola leg(ato) Aug(usti) pr(o) pr(aetore)*.

LONDON.—Acquisitions of the British Museum in 1898.—Egyptian and Assyrian Antiquities: The Egyptian objects, acquired largely by purchase (forty-five numbers), range from the flint objects found in pre-dynastic tombs near Abydos about 5000 B.C., to Coptic stelae of the Christian epoch. There are limestone architectural members, 3200 B.C. and earlier; painted wooden coffins; wooden figures, 3800–3600 B.C.; mummies, early stone vases, bronze tools and weapons, bronze figures, a collection of scarabs, 3600–600 B.C., and one of beads. The Assyrian and Babylonian objects (fourteen numbers) are clay cylinders and other inscribed objects, including a fragment of the Stele of the Vultures and several historical documents. (E. A. WALLIS BUDGE, *Arch. Anz.* 1899, pp. 202–204.)

Greek and Roman Antiquities: The additions by gift (twenty-nine numbers) and by purchase (sixty numbers) are classified as Gold, Silver, Marble, Bronze, Terra-cotta, Bone and Ivory, Pottery, Gems and Porcelain. They include a gold and enamel diadem, Greek work of third century B.C.; a marble head of a youth, resembling the Iacchus of the Eleusinian relief at Athens; a copy of the Aphrodite of Cnidus; a bronze mirror-stand of Aphrodite on a plinth supported by Pegasi, probably Corinthian work; two archaic Boeotian bronze fibulae, one having the oldest known representation of Heracles and the Hydra; an Etruscan mirror, of about 200 B.C., with a game of backgammon and conversation in archaic Latin; a bronze statuette of Athena Hygieia, a copy of Pyrrhus's statue by the Propylaea (*J.H.S.* XIX, pl. 7); several red-figured vases with inscriptions: Πλάνων χαίρε... Ἀττα, Πολύγνωτος ἔγραψεν; Νικίας Ἐ(ρμ)οκλέους Ἀναφλύστιος ἐποίησεν; an Etruscan scarab with a Laocoön scene; small porcelain bowls from a bronze-age cemetery in Cyprus. (A. S. MURRAY, *Arch. Anz.* 1899, pp. 204–206.)

OXFORD.—Acquisitions of the Ashmolean Museum in 1899.—The Fortnum collection, by will of the owner, and the Oldfield collection of Greek, Roman, and Etruscan antiquities, by gift of the owner, have been added to the Museum. The Fortnum collection consists of (1) Renaissance and later bronzes, among them a fifteenth century Italian John the Baptist and a seated Pan, Paduan work of the same period, an inkstand by Peter Vischer, a bronze Centaur, a pair of candelabra by Gouthière (design by Clodion), and some important domestic metal work of the Renaissance period; (2) some remarkably valuable Oriental bronzes; (3) later ceramics; (4) furniture; (5) the Fortnum family portraits; (6) pictures, including a Madonna by Bernadino Pinturicchio, a Saint Catherine by Vittorio Crivelli, an early Venetian Saint Jerome, and some fine English portraits. The

Fortnum Library of books on art and archaeology is also a valuable addition to the resources of the Museum. The Oldfield collection is especially rich in painted vases. Among these is the Busiris vase, a vase of fine style with representation of the Pandora myth, one representing Oedipus and the Sphinx, an Attic white lecythus, and others of interest. There are several fine bronzes, articles of goldsmith's and jeweller's work, two ancient ivories, one a Heracles of severe transitional style, dated about 470 B.C., the other a plaque representing a group of Juno, Apollo, and Diana standing before a column surmounted by a statue of Cupid with a bow. The collection contains also many other interesting objects. The Museum has acquired, besides these two collections, some relics of prehistoric and proto-dynastic Egypt from Hu, Denderah, and Hieraconpolis; prehistoric antiquities from southeastern Spain; Sir Henry Dryden's drawings of megalithic monuments; some fine specimens of early Greek gold and silver work, accompanied by Egyptian porcelain objects found together in a tomb at Camirus, Rhodes; a bronze figure of a youth from Chlebotsari in Boeotia (probably of about 460 B.C.) an Athenian white lecythus, with a new representation of Charon; the contents of a tomb from Falerii; some carved ivories found near Tivoli; some Romano-British inscriptions of the Christian period; and a few other objects. A complete list is given in the *Report of the Keeper to the Visitors*, from which this summary is taken. (See also *Arch. Anz.* 1900, No. 2.)

SILCHESTER.—**Excavations in 1899.**—The ninth annual exhibition of the finds at Silchester is described in *Athen.* June 23. An area of between five and six acres was uncovered and carefully examined during 1899 to the north of the modern road that traverses the city. The foundations of several houses were exposed. At the southeast angle of Insula XXI a detached oblong building, with an apse at the north end, was uncovered. It was probably a hall or meeting-room.

Among the smaller finds of more special interest are an iron finger-ring with an inserted gem, a gnostic gem with a figure of Abraxas, a circular enamelled brooch, a British bronze coin, and a fine bronze chain of delicate links. There are the usual considerable variety of finds in iron, bronze, glass, and bone.

An unusual quantity of perfect, or almost perfect, vessels of pottery was derived from the refuse-pits near the houses. They include some large vessels of coarse ware, a drinking-cup of Castor ware, inscribed "Vitam tibi," and several pseudo-Samian vases of unusual quality.

At the bottom of a refuse-pit a deposit was found which contained remains of numerous fruits and herbs. Remains of a silver refinery were found, and the process as practised at Silchester was illustrated at the exhibition by models and drawings.

Another interesting object is the fine head of a statue of Jupiter, now much defaced.

In *Athen.* May 12, is a summary of the report on these excavations submitted by W. H. St. John Hope and G. E. Fox to the Society of Antiquaries, May 3, 1900. The work done in 1898 is published in *Archaeologia*, LVI, 2, pp. 229-250, with a plan, 5 pls. and 4 cuts.

ISLE OF WIGHT.—**An Ancient Tomb.**—In *R. Arch.* XXXVI, 1900, pp. 192-194 (3 figs.), Louis de Laigue describes a tomb found at Freshwater, Isle of Wight. The rectangular grave, cased in slabs of stone,

contained, besides the remains of a skeleton, a stone pillow and a terra-cotta jar. This tomb resembles the Phoenician tombs found at Cadiz, but one cannot as yet draw conclusions as to Phoenician settlements in the British Isles.

AFRICA

CARTHAGE.—French Excavations.—Reports from Africa occupy the greater part of the *B. Arch. C. T.* for January, February, March, and May, 1900. The longest and most detailed reports are those of Gauckler's excavations in the necropolis at Carthage, where many tombs have been opened and many small objects of interest found. Gauckler has also found several inscriptions. Less important excavations have been carried on in other places in French Africa, resulting in the discovery of remains of Roman settlements and of Latin inscriptions. In several places inscriptions have also been discovered without excavations. The *B. Arch. C. T.* publishes a number of inscriptions from Africa, chiefly epitaphs, with several milestones and a few dedications.

Excavations at St. Monica.—In *C. R. Acad. Insc.* 1900, pp. 83–96 (3 pls.), is an account of Father Delattre's excavations in the Punic necropolis at St. Monica in the latter half of 1899. Many tombs have been excavated. Several stamps on amphorae are published. Vases of various kinds, terra-cotta figurines, amulettes of "Egyptian Faience," objects of glass, alabaster, bronze, lead, iron, ivory, bone, silver and gold, besides some engraved gems, were found. Of the bone objects several are engraved. On one piece an orgiastic banquet scene is represented. On a funeral urn is a Punic inscription of forty-six letters, mentioning Jehavelon, son of Sa(mar), servant of Abdmelqart, son of Hilleçbaal, son of Baalhanno. Other Punic inscriptions consist of only a few letters.

CYRENE.—The Danish Expedition.—The Danish archaeological expedition to North Africa, which has been furnished at the cost of the Carlsberger Fund, started last month from Copenhagen to begin excavations on the site of the ancient Cyrene. (*Athen.* July 7, 1900.)

DOUGGA.—The Theatre.—Excavations at the theatre have laid bare some stairs, fragments of sculptures and inscriptions, including a dedication to Demeter in Greek, a small edicula, and remains of buildings and tombs of Christian times. (*C. R. Acad. Insc.* 1900, pp. 17 f.)

KHANGAT-EL-HADJAJ.—An Inscription.—Among a number of ex-votos dedicated to Saturn, discovered in a vineyard belonging to Dr. Hue, the following inscription was found: *Saturno | Aug(usto) Voltia Nuptialica | et Petronius Bucculus filius et co[n]iux Pe[tr]o[ni] Proculini vestigium vol(um) solverunt.* The names Petronius Bucculus and those of his father Petronius Proculus appear on another ex-voto, *C.I.L.* VIII, 12400. The word *vestigium* probably refers to the imprint of two feet, for Dr. Hue found near the votive slabs a mosaic in which appears a pair of feet. Before the word *vestigium* in the copy appear the letters OVIVOS, which need revision. (*B. Arch. C. T.* December, 1899, p. xxii.)

ROUFFAK.—A Curious Inscription.—Interesting forms mark the following inscription discovered among the ruins of Rouffak: *Genio kast(rorum) Elefant(is) sacrum | Clodia Donata Proper(tii) Crescentis uxor stat[uam] genio patriae ka(storum) Elef(antis) cum base quam | de sua liberalitate ad ornandum kastel(lum) pollicita ex (sestertiis) VIII n(umis) | sua*

pecunia constituit | ad cuius dedicationem | sportulas decem singulo et vinum per collegia ad aepulandum dedit. Loco dato decreto decurionum. The word *Propertii* is read for *Prorep*, which appears in the copy, because of VIII, 6572, which shows a *Propertius Cresces*. (*B. Arch. C. T.* December, 1899, p. xi.)

SOUSSE.—A Bronze Tablet.—At a meeting of the Commission de l'Afrique du Nord of December 12, 1899, P. Gauckler reported the discovery at Sousse of a bronze tablet broken on the left side and base. The measurements are 2½ inches long, 4 inches wide. The inscription as restored reads: [*Imperatore*] *Caesare* [*Traiano Aug(usto) et*] *Africano co(n)s(ulibus) |[tesse]ra hospi[talis]*. If this is correct, this tablet is one of the few *tesserae hospitales* known to exist. The letters are of a good period. The date probably is 112 A.D. (*B. Arch. C. T.* December, 1899, p. xii.)

UNITED STATES

BOSTON.—Acquisitions of the Museum of Fine Arts in 1899.—

The Curator of Classical Antiquities presents a remarkable list of acquisitions. These include 14 sculptures in marble or stone, 55 bronzes, 41 vases, 37 gems,—including 19 from the Marlborough collection,—37 pieces of jewelry (counting 32 archaic rosettes under one number), 19 objects in glass, and 2 not classified,—a total of 205 additions to the collection of originals, together with a number of casts. Most of the originals were purchased with a portion of the bequest of Henry L. Pierce. A detailed description of the objects is given by the Curator, Edward Robinson, in his annual Report to the Trustees, pp. 20–111. The list is as follows:

SCULPTURES IN MARBLE.—1. *Archaic Head of a Maiden*, probably Artemis. This head was inserted in a statue. The goddess is crowned with a narrow diadem, decorated around the front and sides with a row of flowers in relief. Fine work of about 500 B.C.—2. *Part of an Archaic Stele*. Mounted warrior in high relief, profile to right. Excellent Attic work of the beginning of the fifth century B.C.—3. *Part of a Colossal Statue of Cybele*. A work of exceptional importance. It is unmistakably a Greek original, probably of the school and period of Phidias. It was designed and executed with reference to a position at a considerable elevation above the eye. All its details are calculated to have their best effect when it is looked at diagonally from below. The goddess is seated upon a throne, the left foot resting squarely upon the plinth in front of her, the right drawn somewhat back, with the heel raised. The upper part of the body is held erect, with the left forearm resting upon the edge of a tympanum. Height, including plinth, 2.41 m.—4. *Head of a Goddess*, probably Athena. A fragment of heroic size, evidently from a statue. An original Greek work of great beauty, dating apparently from the second quarter of the fourth century B.C. Is compared with the "Broadlands" Aphrodite (see *Annual Report* for 1896, p. 21, No. 3) and the Venus of Arles.—5. *Head of a Girl*. From a marble statuette of the fourth century B.C. A charming fragment, resembling the head of Hygieia in the National Museum at Athens, No. 191 (*Mith. Athen.* 1885, pl. ix).—6. *Head and Torso of a Statue of Aphrodite*. The statue, completely restored, was formerly in Rome, and is described or mentioned in the *Beschreibung Roms*, III, 3, p. 156; by Stark, in the *Sächsische Berichte*, 1860, p. 59, 10; Bernoulli, *Aphrodite*, p. 230, No. 24; Matz-Duhn, *Antike Bildwerke in Rom*, I, No. 755. The head is at present

detached from the figure, as the neck was modern, and all the restorations of the statue (with the exception of the nose, the lower lip, and the front of the chin) have been removed. This belongs among the most beautiful of the examples of the type best known through the Venus dei Medici. The marble is apparently Parian, and it has now a creamy white tone which materially heightens the beauty of the modelling. The statue was larger than the Medici Venus, which it surpasses also in the beauty of its execution and proportions.—7. *Greek Portrait Head*, apparently of a poet or philosopher. Probably a copy of a work of the second half of the fourth century B.C.—8. *Roman Portrait Head*, dating from the last years of the Republic. It is of heroic size, and made of *palombino*, a hard, fine-grained limestone used by the sculptors of that period. The subject is an old man, smooth-shaven, and absolutely bald. An excellent example of realistic Roman portraiture at its best.—9. *Head of Augustus*, of heroic size. This was formerly in the Despuig collection, in the island of Majorca. It is No. 22 in the catalogue of that collection, privately issued by Don Joaquin Maria Bover, at Palma, 1845 (cf. Visconti, *Museo Pio Clementino*, VI, p. 180, note 1; Visconti-Mongez, *Iconographie Romaine*, II, p. 30; Hübner, *Bull. d. Ist.* 1861, pp. 104 ff. (p. 108, No. 22); his *Antike Bildwerke in Madrid*, p. 297, No. 717; and Bernoulli, *Römische Ikonographie*, II, p. 40, No. 72). The only published illustration of it appears to be the engraving by Raphael Morghen. The head was part of a statue, though made separately. It was found at Ariccia, near Rome, between 1787 and 1796. To be dated soon after the battle of Actium, 31 B.C.—10. *Portrait of Octavia*(?). Similar to the basalt head in the Louvre. Cf. Bernoulli, *Römische Ikonographie*, II, pp. 116 ff.—11. *Roman Torso*, consisting of cuirass, with pendants, and the *paludamentum* hanging over the left shoulder. The head was a separate piece, inserted. The cuirass is decorated with reliefs of Medusa, Athena adored by two Victories, floral ornaments and scrolls in relief. Two rows of pendants are attached to the cuirass, these also decorated with reliefs.—12. *Fragment of a Roman Relief*, containing the head of a man, life size.—13. *Roman Tombstone*, of Hedone Petronia and her son Philemon. The upper half a niche, with busts of Hedone and her son, full-front, in high relief. She is an elderly woman, the son a boy of apparently about twelve years. Below this niche is a panel with the inscription: *Petronia · Hedone · fecit · sibi | et · Petronio · Philemoni · filio | et · libertis · libertabusque | posterisque · eorum* |.—14. *Portrait Head of an Elderly Man*. Of gray (Asiatic) marble. He is smooth-shaven, and has short, thick, curly hair. The greater part of the nose is missing, so that it is impossible to say what its shape was. The head bears a strong resemblance to one in Athens, published by J. W. Crowfoot, *J.H.S.* 1897, p. 321, pl. xi, and by Arndt, *Griechische und Römische Porträts*, Nos. 343, 344. Apparently not earlier than the second century after Christ.

BRONZES.—i. *Statuettes*. 1. *Archaic Youth*, of the "Apollo" type. Cast solid. Can hardly be later than the middle of the sixth century B.C.—2. *Hermes Criophorus*. Archaic Greek, of the second half of the sixth century B.C., in remarkably good preservation. Cast solid.—3. *Statuette of Pan*, of late Greek type. Left arm missing, also both legs below the knees. He is smiling, and raises a syrinx to his mouth. Careful anatomical details. Cast solid.—4. *Goat*, of advanced Archaic style, possibly Etruscan. Cast

hollow.—ii. *Bronze Vases*. 5. *Archaic Greek Oenochoe*, so-called "Chalcidian" style, sixth century B.C.—6. *Greek Aryballus*.—7. *Greek Oenochoe*, later so-called "Chalcidian" style, first half of the fifth century B.C. Adorned with reliefs.—8. *Small Olpe*, with decorated handles.—9. *Large Greek Amphora*, published by Engelmann, *Arch. Anz.* 1898, p. 52.—10. *Small Cylindrical Jar* (described in the sale catalogue of the Tyszkiewicz collection, No. 127).—11. *Olpe*, probably late Greek.—12. *Roman Oenochoe*, Pompeian style.—13. *Roman Patera Umbilicata*.—iii. *Handles and Other Parts of Vases*. 14–34. Bronze ornaments and handles, several in the form of statuettes, some of which are of excellent workmanship. Dates and styles from Greek work of the sixth century B.C. to Roman work.—iv. *Miscellaneous Objects*. 35. *Greek Mirror*, with cover. The cover decorated with rope pattern and concentric circles, the mirror with concentric circles in flat relief.—36. *Etruscan Mirror*. Incised decorations. Subject, Poseidon and a boy (Glaucus?).—37. *Etruscan Mirror*. Incised decorations. Subject, Athena and the Telamonian Ajax. To be published by Edmund v. Mach, in *Harvard Studies in Classical Philology*.—38. *Etruscan Mirror*. Subject, a nude boy and a horse.—39. *Etruscan Harpago*, or flesh-hook.—40. *Aspergilium*, a small, oval vase, for sprinkling water in lustration. Decorated with incised patterns.—41. *Strainer*.—42. *Spout*, in the form of a small lion's head.—43. *Bell*, in the form of a disk.

VASES.—Many of these are from the Forman collection, in the Sale Catalogue of which they are described by Cecil Smith (London, 1899).—i. *Early Styles*. 1. *Large Dipylon Jug*, with linear patterns and water birds.—2 and 3. *Two Colossal Funerary Amphorae*, decorated in relief. From Boeotia. Published by de Ridder, *B.C.H.* XXII, 1898, pp. 439 ff., pls. iv–vi bis. Very rare.—4. *Boeotian Bowl*, with linear, etc., patterns.—5 and 6. *Shallow Rhodian Dishes*, Forman collection, Nos. 268, 269.—7. *Rhodian Plate*, Forman collection, No. 270.—8. *Small Ointment or Perfume Vase* in the form of an archaic bust of Medusa. Forman collection, No. 273.—9 and 10. *Protocorinthian Lecythis*.—11. *Small Ring-shaped Boeotian Aryballus*. Linear, etc., patterns. Inscription, *Μνασάλλκης ἐποίησε*.—12. *Corinthian Aryballus*, with the death of Ajax on the front.—ii. *Black-figured Style*. 13. *Drinking Horn in the Form of a Galley*. Forman collection, No. 264. Very early black-figured style.—14. *Amphora* of the "affected" black-figured style. Forman collection, No. 303. Of the class described by Karo, *J.H.S.* 1899, pp. 147 ff.; would be grouped under II b of his classification. Four groups of figures, men and youths.—15. *Amphora* of the "affected" style of the same class and group as 14. The designs are: (A) A bearded man (Zeus?) on a throne. Hermes walks away to right. At the extreme right is a bearded man. Between him and Hermes a small doe. Behind the enthroned figure are two men, one bearded and the other not. Between them is a stand, on which is an amphora. In front of them stands a small, nude man. (B) A group somewhat like the other, but not by any means identical. Figures of men and youths (and a dog) under the handles and on the neck.—16. *Cylix* of the earlier black-figured style. The designs are: (A) Circe transforming the companions of Odysseus (eight figures); (B) Odysseus in the Cave of Polyphemus (seven figures). Below the pictures are bands of lotuses, lines, and rays.—17. *Cylix* of the middle period of the black-figured style. Two designs: (A) Circe and the Companions of Odysseus (ten figures);

(B) Heracles in combat with Achelous. — 18. *Panathenaic Amphora*, of the latter part of the sixth century B.C. From Vulci. Published by Gsell, *Les Fouilles de Vulci*, p. 184, pl. xvii, fig. 2. Athena striking to left, brandishing spear. She has shield, helmet, chiton, a short outer garment, and aegis. At either side is a Doric column, on the capital of which stands a cock. On the left-hand column the inscription τὸν Ἀθηναίων ἀθλον. On the back, five nude men, running to right. — 19. *Toy Panathenaic Amphora*. Forman collection, No. 315. Obverse, Athena. Reverse, a beardless athlete. — 20. *Hydria*. Forman collection, No. 284. On the body, Heracles and Triton. — 21. *Large Scyphus*, of the later black-figured style. On one side an Arimasian woman shooting at a griffin. On the other side a lion about to attack four bullocks. — 22. *Scyphus*, like 21. Designs: (A) An Amazon walking to right, holding the reins of a horse which backs away to left. At either side a tree. (B) Similar to (A), but with a bearded man in place of the Amazon. Under each handle is a dog. — 23. *Scyphus*. Forman collection, No. 323. Subjects, on each side, an oil-press managed by a man and a youth. — 24. *White Lecythus*, of the later black-figured style. Principal design, an oil shop. — 25. *Oenochoe*, of the later black-figured style. Principal design, a butcher cutting up meat. — 26. *White Lecythus*, of fine style and technique. On the front is a young warrior leading a horse to right. — 27. *Cylix*, black inside and out, except a small circle in the middle of the interior, and a band around the exterior, on the line of the handles. On this band are the only decorations, — on each side of the handles, a scroll ending in a palmette, and between them the maker's inscription, the same on both sides of the vase:

ΧΣΕΝΟΚΛΕΣ: ΕΓΟΙΕΣΕΝ:

28. *Amphora "a Colonnnette."* Published by Engelmann, *Arch. Anz.* 1898, pp. 51 ff. (A) Zeus intervening to protect Athena from the attack of Ares. (B) A bearded warrior lifting a dead youth on his shoulder, and starting to carry him to the right, preceded by a woman. Probably Ajax, guided by Thetis, carrying away Achilles. — 29. *Vase of the "Plemochoe" Type*. For the shape, see *Jb. Arch. I.* 1899, p. 68. Nearly plain. Decorations of lines and dots in relief, black, and red. The base has a profile like that of an Ionic column. — 30. *Cabirium Scyphus*. See Walters, *J.H.S.* XIII, pp. 77 ff., Winnefeld, *Athen. Mith.* 1888, pp. 412 ff., pls. ix-xii. Subjects, caricatures of Hermes, Aphrodite, Hera, Apollo (?), Demeter (?), and Persephone (?). — 31. *Cabirium Scyphus*. Subjects, (A) A caricature of the fight between Achilles and Hector. (B) Three bearded men. — 32. *Cabirium Scyphus*. Subjects: (A) A nude pygmy offering wine to a goat. (B) A nude pygmy with a stick, evidently intending to beat a crane, which stands opposite him. — 33. *Cabirium Scyphus*, decorated only with an ivy wreath, black lines, and a black band about the rim. — 34. *Terra-cotta Top* (see *Athen. Mith.* 1888, p. 426.) Decorations, in dark brown glaze, consist of two swans and two palmettes. — 35. *Phiale Mesomphalos*, covered with black glaze. Decorated with three concentric circles of short, incised lines, and with six stamped ornaments, stars and dolphins alternating. — iii. *Black-figured and Red-figured Styles Combined*. 36. *Large Amphora*, probably by Andocides. Forman collection, No. 305. The same subject, Heracles leading the Cretan bull, is painted on one side in the black-figured style, on the other in the red-figured style. Probably this is the vase mentioned in *Bull. d. Ist.*

1842, p. 187; see Jahn, *Vasensammlung zu München, Einleitung*, note 494; Klein, *Euphronios*², p. 36; and Norton in *Am. J. Arch.* 1896, p. 39. It may certainly be ascribed to the hand of Andocides.—iv. *Red-figured and Miscellaneous Styles.* 37. *Cylix Signed by Xenotimus.* This is one of the two exquisite cups by Xenotimus, formerly in the Van Branteghem collection. It is published by C. (Conze), *Ant. Denk.* I, pl. lix, upper half; also by Froehner in his *Catalogue of the Burlington Fine Arts Club Exhibition*, 1888, No. 10, and in his *Catalogue de la Collection Van Branteghem*, No. 85, pl. xxix. See also Robert, *Arch. Anz.* 1889, p. 143. According to Froehner, it was found at Sorrento. On the inside is the single figure of Peirithous (ΠΕΡΙΘΟΞ in white) seated upon a chair, profile to right. On the outside the palmette-scrolls under and around the handles divide the figures into two groups: (A) The birth of Helen. In the middle is an altar with a volute top. On this are the egg from which Helen is to be born, and the eagle of Zeus. At the right is Leda (ΛΕΔΑ), and at the left stand Tydareus (ΤΥΔΑΡΕΩΣ) and Klytaemnestra (ΚΛΥΤΑΙΜΕΣΤΡΑ). (B) Three women, possibly sisters of Klytaemnestra. The middle one, Phylonoë (ΦΥΛΟΝΟΕ), has been identified as such by Robert. She is talking with one of her companions (ΚΛΕΟΤΡΑ), Kleotra. The third, at the right, is looking in the opposite direction, apparently to show that the two groups are meant to be connected. She has no name, but in the place where it should be is the artist's inscription (ΞΕΝΟΤΙΜΟΣ ΕΓΟΙΕΞΕΝ).—38. *Campanian Amphora*, of late style. Chief designs: (A) the meeting of Electra, Orestes, and Pylades. On the neck of the vase is a Siren. (B) A youth in a long mantle, talking with a woman.—39. *Large Apulian Scyphus.* Decoration chiefly grape-vines.—40. *Apulian Ascus*, with brilliant polychrome decorations. Along the top is a plastic figure of Scylla.—41. *Cup Signed by Popilius.* Published by Hartwig, *Röm. Mith.* 1898, pp. 399 ff., pl. xi. The reliefs which cover the exterior represent a battle of Alexander the Great.

GEMS.—A. *From the Marlborough Collection.* These number nineteen. Of these thirteen are Greek or Roman, three of the Renaissance period, and three modern. 1. The most important is undoubtedly the great *Cameo Representing the Nuptials of Eros and Psyche*.—5. *Late Greek Intaglio.* Bacchus and Ariadne. Signed by Hyllus. All the gems from the Marlborough collection are described in the sale catalogue, London, 1899. Those now in Boston are Nos. 271, 272, 165, 187, 265, 215, 517, 414, 209, 414, 617, 220, 225, 325, 490, 582, 718, besides the Eros and Psyche cameo, which is photographed, sale catalogue, p. 26. B. *From Miscellaneous Sources.* 20–37. Babylonian, Etruscan, Greek, Graeco-Roman and Roman intaglios and cameos, and a Sassanian ring.

JEWELRY.—1–21. *Twenty-one Rectangular Plaques*, of very thin electrum, evidently for personal adornment. Forman collection, No. 397. Said to have been found at Camirus, in Rhodes. The ornaments, figures of the "Persian Artemis," centaurs, rosettes, and various patterns are in repoussé.—22. *Thirty-two Rosettes* of electrum, stamped. Archaic Greek. Forman collection, No. 397. Said to have been found at Camirus.—23. *Small Fillet* of electrum. Forman collection, 397. Camirus.—24, 25. *Two Rectangular Plaques* of electrum. Parts of archaic Greek earrings. Each plaque has two panels, each with an archaic head, full front. Forman collection, No.

397. Camirus.—26. *Pendant of an Earring*. Of pale gold or electrum. In the form of a double hook, with a griffin's head at each end. Forman collection, No. 399.—27, 28. *Two Gold Ornaments*. Archaic Greek. Precisely alike. Rosettes and borders. Forman collection, No. 398, Camirus.—29. *Gold Spiral* for the hair. Archaic Greek.—30. *Greek Ring*. On the bezel in intaglio a representation of Danae. Fifth century B.C.—31. *Greek Fibula* of gold. This and 32–35 are said to have been found together.—32. *Greek Fibula* of gold.—33, 34. *Gold Clasps* of delicate workmanship.—35. *Small Gold Sheath*.—36. *Greek Necklace* of gold and sard.—37. *Roman Fibula* of gold.

GLASS.—1. *Small Torso of Venus*. Hoffman sale, 1899, No. 492.—2, 3, 4, 5. *So-called Millefiori Bowls*. No. 5 is from the Hoffmann sale, No. 439.—6. *Round Box* of variegated glass, Hoffmann sale, No. 439.—7. *Smaller Box*, similar to the last.—8. *Jar*, without cover. Forman sale, No. 199.—9. *Small Crater*, without handles.—10. "*Tear-jug*."—11. *Oenochoe*.—12, 13. *Two Small Alabastra*.—14. *Drinking-cup*, with inscription ΜΥΡΘΗ ὁ ἀγοράζων. Of Roman date.—15. *Tiny Amphora*.—16, 17. *Phoenician Bottles*.—18. *Egyptian Kohl-jar*.—19. *Fragments of Glass Mosaic*. Late Egyptian.

MISCELLANEOUS.—1. *Lead Jumping-weight (Halter)*.—2. *Small Amphora* of rock crystal.

BYZANTINE AND MEDIAEVAL ART

ITALY

PALERMO.—*Arabic Inscriptions*.—At Palermo, in 1897, a stone was found, containing part of a monumental Arabic inscription, thought to be the earliest yet found in Sicily. It is probably from the top of one of the towers in the wall of Khālisa. The museum at Palermo has acquired two sepulchral inscriptions in Arabic letters, one of which, though fragmentary, is an excellent example of the finest Arabic taste in ornamentation. (MONS. B. LAGUMINA, *Not. Scavi*, 1899, pp. 306–309; 5 figs.)

ROME.—*Byzantine Art and the Oriental Congress at Rome*.—At the Oriental Congress held at Rome in the autumn of 1899 the subject of Byzantine art was represented by papers and addresses by Strzygowski, Krumbacher, Venturi, Federici, Modigliani, Baniola, Botti, Graeven, and Lambros.

Congress for Christian Archaeology.—The Congress for Christian Archaeology met at Rome, April 17–25, 1900. Cardinal Parocchi had been nominated as "protector" by the Pope. The Congress held its meetings in seven distinct sections: (1) The First Christian Epoch; (2) The Development of Christianity; (3) The Early Middle Ages in the West; (4) Christian Antiquities; (5) The Early Middle Ages in the East; (6) Liturgy, Epigraphy, and Literature during the First Six Centuries in relation to Christian Antiquities; (7) Didactic and Practical Archaeology. It was unanimously resolved that a congress should be held in the year 1904 at Carthage, the metropolis of Roman Africa. (*Athen*. April 14 and June 16, 1900.)

For the Exploration of the Catacombs.—Monsignor Crostarosa, secretary to the Commissione di Archaeologia Sacra, has issued an appeal to all who are interested in Christian antiquities, to subscribe toward the further

exploration of the catacombs. For all further information address Monsignor P. Crostarosa, Via del Quirinale, 24, secretary of the Commission. A list of subscribers' will be published in the *N. Bull. Arch. Crist.* (*Biblia*, May, 1900.)

Santa Maria Liberatrice.—This church has been demolished, and a mediaeval sanctuary, which occupied the inner hall of the Augusteum, at the back of the church, has been rediscovered. It contains frescoes in horizontal bands. Christ surrounded by cherubim occupies the lunette above the apse, and below is a second band, containing a part of a Greek homily in white letters on a red ground. Other paintings in other parts of the building represent Greek and Latin saints. (*LANCIANI, Athen.* May 12, 1900.)

The Monastery of S. Saba.—Investigations in the monastery of S. Saba, on the lesser Aventine, show that the present edifice dates from A.D. 1205, and was designed and decorated by Magister Jacobus, son of Magister Laurentius, the founder of the so-called dynasty of the Cosmati. Of the previous building little was known. The Cosmati church was built *over* the old one, the remains of which are in a good state of preservation, and both were erected over and within the remains of a classic edifice, probably the barracks of the fourth cohorts of the Vigiles. The early mediaeval church was smaller than the present one, and shaped like an oblong hall with an apse opposite the entrance door, but without aisles. It was entirely covered with fresco paintings of the seventh or eighth century, with inscriptions or names in white on a red ground. The difference of level between the two pavements being hardly 5 feet, only the lower rim of the panels, viz. the feet of life-size figures, are *in situ*; but the mass of rubbish which fills up the intermediate space contains splendid specimens of the higher bands of frescoes, including several heads of saints and one of the Saviour. (*R. LANCIANI, Athen.* May 12, 1900.)

FRANCE

BYZANTINE STUDIES IN FRANCE.—In *Byz. Z.* 1900, pp. 1-13, is republished from the *Revue Encyclopédique*, March 11, 1899, a sketch of Byzantine studies in France during the last 250 years by Ch. Diehl, who has been recently called to lecture on Byzantine history in the University of Paris. A lectureship on Byzantine Christianity has been established at the École des Hautes Études at Paris, to be filled by G. Millet.

AVIGNON.—The Walls.—In 1895 the municipal council of Avignon voted to destroy the walls of the city, but such a protest was raised that the project was abandoned. The council has now again voted to destroy a part of the ancient walls. At the instigation of Eugène Müntz, the Académie des Inscriptions has uttered a protest. (*Chron. d. Arts*, 1900, p. 163.)

BOSCHERVILLE.—The Abbey of St. George de Boscherville.—A summary of A. Bernard's *Monographie de l'église et de l'abbaye Saint-Georges de Boscherville* (1899) is given, with illustrations, in *Ami d. Mon.* XIII, pp. 331-338.

FONTENAY.—A Tomb in the Abbey.—In the Abbey of Fontenay is the tomb of a knight whose feet rest against lions, and of his wife, whose feet rest against greyhounds. The tomb dates apparently from the middle of the fourteenth century, is Flemish in style, and a prototype of the famous tombs of the Dukes of Burgundy. (*Chron. d. Arts*, 1900, p. 154.)

NARBONNE.—**An Early Christian Sarcophagus.**—Near Narbonne there has recently been discovered an early Christian sarcophagus, the face of which is ornamented with strigillations and a central rectangular relief of the Good Shepherd between two palm trees. The sculpture is in low relief, and is attributed by M. Thiers, keeper of the archaeological museum at Narbonne, to the second half of the third century. (*B. Arch. C. T.* April, 1900, p. 5, and May, 1900, p. 3.)

PARIS.—**A Merovingian Sarcophagus.**—In restoring the old church of Saint Pierre de Montmartre, Paris, several sarcophagi from the Merovingian Cemetery, have been found. One of them, adorned with a Greek cross inscribed in a circle, is in a fine state of preservation, and will be sent to the Musée Carnavalet. (*R. Art Chrét.* 1900, p. 89.)

Triptych acquired by the Louvre.—A valuable triptych has been transferred from the Parliament House to the Louvre. In the centre is Christ crucified; above is the Father and Holy Spirit; on the right wing is represented in the background the Palais de Justice, and in the foreground the Virgin, the three Marys, St. John the Baptist, and St. Louis; on the left wing, in the background is the Louvre and the Hôtel de Ville; and in the foreground St. Denis, St. Charlemagne, and St. John the Evangelist. The painting, wrongly attributed first to Albrecht Dürer, then to Van Eyck, was executed between 1452 and 1455. (*Chron. d. Arts*, 1900, p. 57.)

A Manuscript of the Gospel of St. Matthew.—At the meeting of the Académie des Inscriptions, April 6, 1900, H. Omont exhibited a very ancient Greek manuscript of the gospel of St. Matthew acquired last year in Asia Minor for the Bibliothèque Nationale. It is in large uncial letters, and illustrated with fine miniatures representing the beheading of St. John Baptist, the miracle of the loaves, the blind man of Jericho, and the dried fig tree. (*Chron. d. Arts*, 1900, p. 141.)

Miniatures in a Manuscript in the Musée Condé.—At the Académie des Inscriptions, March 23, 1900, Léon Dorez read a note on an illustrated manuscript in the Musée Condé. The text is a song dedicated to Brizio Visconti by Bartolomeo di Bartoli of Bologna. It is illustrated by twenty miniatures of fine style, in which may be detected the influence of the frescoes of the Spanish chapel at Santa Maria Novella and of Andrea Pisano's sculptures on the Campanile at Florence. The manuscript may be dated about 1355. (*Chron. d. Arts*, 1900, p. 119.)

ROUEN.—**Destruction of Ancient Monuments.**—In spite of thousands of protests, the municipal council at Rouen has ordered destroyed the house of the fifteenth century in the Rue Saint-Romain, and all the old houses in this street, thus destroying the artistic and picturesque character of this quarter of Rouen adjoining the cathedral. (*R. Art Chrét.* 1900, p. 275.)

ST. GERMAIN.—**The Museum.**—The museum at St. Germain has recently acquired a fine collection of prehistoric antiquities made by M. d'Acy. The collection is the fruit of discriminating searches during thirty years, and could never be duplicated. (*Chron. d. Arts*, 1900, pp. 58-59.)

THEROUANNE.—**Excavations at the Cathedral.**—Excavations carried on by C. Enlart, at the expense of M. de Bayenghem, since April, 1898, have laid bare, on the site of the cathedral of Théroutanne, destroyed in 1553, substructures of Roman buildings, traces of churches of the ninth

and tenth centuries, and of a choir of the twelfth and thirteenth centuries. The most important discoveries are a Roman inscription in honor of Gordianus, giving the name of the *Civitas Morinorum*, foundations of a deambulatory of German plan and of transition style, built from 1130 to 1133, a series of fine fragments of sculpture of the thirteenth century, ornaments, fragments of statuary, and remains of a remarkable pavement incrustated with figures; finally, fragments of glass of the thirteenth, fabrics of the fourteenth, and bronzes of the fifteenth centuries. (*C. R. Acad. Insc.* 1899, p. 622.)

BELGIUM

DENDERLEEUEW.—**The Church of Saint-Amand.**—The church of Saint-Amand, of Denderleeuw, parts of which date from the thirteenth century, is about to be restored at an expense of 114,000 francs. The restorations are in charge of a talented young architect, M. Henri Valcke. (*R. Art Chrét.* 1900, p. 89.)

SWITZERLAND

CHILLON.—**The Castle.**—Recent work of restoration has discovered parts of the castle long unknown,—fine lanceolate windows of the fourteenth century which had been filled up or altered, fireplaces which had been hidden, decorative paintings, ceramics, etc. The chapel and crypt have been explored. They were begun about 1250, but finished and decorated in the fourteenth century. (*Chron. d. Arts*, February 24, 1900.)

GERMANY

GRÜNSTADT (PALATINATE).—**Merovingian Graves.**—In the garden of the former residence of the Counts of Leiningen-Westerburg two graves of Merovingian times were found in 1884. On February 22, 1900, two similar graves were found. One was the grave of a wealthy woman, the other of a slave. In the woman's grave were numerous objects, the ornamentation of which is for the most part derived from the South and East by way of Rome, though Germanic origin is probable for some of the designs. In the slave's grave was only a hemispherical black vase adorned with lines and incuse squares. (*C. MEHLIS, Berl. Phil. W.* May 26, 1900.)

AFRICA

RUSGUNIAE.—**Christian Basilica.**—In *C. R. Acad. Insc.* 1900, pp. 48–52, is an account, by St. Gsell, of a Christian basilica found by Lieutenant Chardon at Cape Matifou, near Algiers, the ancient Rusguniae. The basilica had a central nave and two aisles. The floor was of mosaic. Several Latin inscriptions are published relating to the church. The mosaics and inscriptions appear to belong to the fifth century after Christ.

RENAISSANCE ART

ITALY

VENICE.—**A Picture by Alvise Vivarini.**—The Academy has acquired Alvise Vivarini's *God the Father Blessing*. It was formerly in the Scuola San Girolamo, then in a private collection. (*Chron. d. Arts*, February 3, 1900.)

FRANCE

AGEN.—**Foundation of a Museum.**—M. de Chandorky, who died a year ago, left his entire collection of paintings, furniture, tapestries, and porcelains to the city of Agen. He also left to the city his house at Agen and five hundred thousand francs for the maintenance and increase of the collection. As the collection embraces not merely the objects of art which he had at Agen, but also those at Dalot and Paris, it is of considerable value. (*Chron. d. Arts*, 1900, p. 86.)

BORDEAUX.—**Renaissance Artists.**—M. Jaullieur has published a pamphlet of twenty-two pages, entitled *Les Bordelais inconnus, notes sur quelques artistes ou artisans remarquables du XV^e au XVIII^e siècle, architectes et imagiers-sculpteurs*; Cadoret, Bordeaux. He not only gives the names of several architects and sculptors hitherto unknown, but also various contracts which are interesting from the point of view of the terminology of art. (*R. Art Chrét.* 1900, pp. 248-249.)

FONTAINE.—**Discovery of Wall-paintings.**—A few years ago, the choir and sanctuary of the church at Fontaine, near Dijon, were restored, when were discovered paintings of the Resurrection and of the four Fathers of the Church. In 1899, the nave and side aisles were restored, the removal of the whitewash bringing more paintings to light. Of these, the most important, representing the Death and Assumption of the Virgin, is especially interesting, because presenting a view of Dijon crowned with turrets and church spires which have since disappeared. The painting is inscribed, *Huguenin Truffenet et R. . . . sa femme ont fait faire cette peinture*. On one of the sepulchral stones of the choir is found the epitaph, *Cy gist Richarde jadis feme de feu Huguenin Truffenet laquelle trespassa le VIII^e jour de juin MV^e et XXX*. The painting therefore antedates the year 1530.

PARIS.—**Reclassifying the Paintings at the Louvre Museum.**—The aim of the new arrangement is to redistribute the paintings by schools and periods. The *Salle des États*, which projects over the gardens of the Carrousel, has been divided into two large top-lighted galleries, two high vestibules, and fourteen cabinets, in the style of those of Dresden and Munich. One of the two large galleries will contain the 'History of Marie de' Medici,' by Rubens; the other will be devoted to the Flemish school in general. The Rembrandts will be gathered into two of the new cabinets. Four of the cabinets will be devoted to the French and Dutch paintings of the *Salle Lacaze*, and one will be accorded to the German school, another to the English school. The Italian paintings of the thirteenth and fourteenth centuries, already grouped together, will remain unchanged. (*London Telegraph*, February 10, 1900.)

An Unedited Drawing representing the Town of Dieppe.—Ch. Normand has found in the Bibliothèque Nationale a water-color drawing of the date 1699, representing the castle and town of Dieppe. It reproduces some buildings which still exist and others which have vanished. It is published in the *Ami d. Mon.* XIII, p. 360.

Old Paris at the Exposition of 1900.—The reproduction of a section of Old Paris at the Exposition will serve to excite a new interest in the preservation of the mediaeval and Renaissance monuments of the city. A detailed description is given in the *Ami d. Mon.* XIII, pp. 214, 292-308.

VERSAILLES.—**The Museum.**—Under the direction of M. de Nolhac, the Museum of Versailles is being rapidly transformed. In March, 1900, four rooms, devoted to portraits of the sixteenth and early seventeenth centuries, were opened. The first shows portraits of persons anterior to the reign of Henri IV; the second contains French portraits of the reign of Henri IV; the third is devoted to Spanish, Flemish, and Dutch portraits of this period; and the fourth room contains portraits of the time of Louis XIII. In April four more rooms were opened, containing portrait paintings and busts of the time of Louis XIV and Louis XV. (*Chron. d. Arts*, 1900, pp. 96, 139.)

Versailles and the Two Trianons.—Twelve numbers of the monograph of Philippe Gille and Marcel Lambert, entitled *Versailles et les deux Trianons*, have appeared. A résumé of its contents is begun by Ch. Normand in *Ami d. Mon.* XIII, pp. 343-346.

A Portrait of Cromwell.—The museum at Versailles possesses a portrait catalogued merely as a painting of the seventeenth century. It belonged to the Comte du Luc, and in 1777 was sold, the catalogue describing it as a portrait of Cromwell, by Sir Peter Lely. It was purchased for the King by the Comte d'Angiviller, who attributed it to Gaspard de Croyer. Possibly further investigation may reveal the true authorship of the portrait. (*Chron. d. Arts*, 1900, p. 24.)

BELGIUM

ANTWERP.—**The Van Dyck Exhibition.**—At the banquet held at Antwerp in connection with the Van Dyck Exhibition, Sir Lawrence Alma Tadema spoke on the influence of Van Dyck on the English School, and M. Georges Lafenestre spoke on Van Dyck in France. These addresses are published in *L'Ami d. Mon.* XIII, pp. 253-264. The same number gives an illustrated account of the procession representing the History of Art, held at Antwerp in connection with the Van Dyck Exhibition.

GERMANY

BERLIN.—**Acquisitions of the Museum.**—The Berlin Museum has recently received a painting by Francesco Albano, representing the meeting of Christ and Mary Magdalen. A sketch for this painting exists in the Palazzo Bianco in Genoa and a small replica in the Louvre. The Museum has also received twenty medallions by Moderno, Riccio, Valerio Belli, Giovanni Bernardi, and others, and five bronze statuettes, one of which is a Putto with a bunch of grapes by Fiamingo. (*Jb. Preuss. Kunsts.* 1900, pp. i-iii.)

Dürer's Paintings of the Years 1506 and 1507 in the Berlin Gallery.—Noteworthy among the acquisitions of the Berlin Gallery in recent years have been the paintings by Albrecht Dürer. Especially valuable for the history of Dürer's activity are three paintings of the years 1506 and 1507, a 'Madonna with the Goldfinch,' a 'Portrait of a Woman,' and a 'Bust of a Maiden.' They illustrate Dürer's work in Venice, and reflect strongly the influence of Italian masters. They are published by Max J. Friedländer in the *Jb. Preuss. Kunsts.* 1899, pp. 263-270.

FRANKFORT.—**The Prehn Gallery.**—A little visited, but important, gallery of small paintings is the Prehn Gallery in the Archivgebäude at

Frankfort a. M. The catalogue, dating from 1843, is a useful inventory, but is unscientific. The collection is chiefly valuable as an illustration of the work of local artists. A number of wrong attributions are noticed by Th. von Frimmel in *Chron. d. Arts*, 1900, pp. 71-73.

ENGLAND

LONDON. — A New Gallery. — In the *Nation*, July 19, 1900, is a letter on the new gallery at Hertford House, Manchester Square, London, containing the Wallace collection. The chief interest of the collection centres about the French pictures, but there are several Rembrandts, a Van Dyck, a Velasquez, Rubens's 'Rainbow Landscape,' Titian's 'Perseus and Andromeda,' and other interesting works. Students of painting who visit London cannot afford to miss seeing this new gallery.

The Van Dyck Exhibition. — The winter exhibition of the Academy contained a notable collection of paintings by Van Dyck, notable especially for the abundance of portraits from Van Dyck's English period. Of the 129 paintings attributed to him, some 30 were certainly not by his hand, and 10 not even in his style. The exhibition fell behind the Van Dyck exhibition at Antwerp, if viewed as a representative exhibition of Van Dyck's art in general. (*Rep. f. K.* 1900, pp. 168-171.)

Early Flemish Paintings at the New Gallery. — During the winter months of 1900 the directors of the New Gallery have placed on exhibition a collection of paintings by the early Flemish school, a series of paintings by Rubens, and a collection of English paintings of the eighteenth century. The Flemish paintings are reviewed critically by W. H. James Weale, in the *R. Art Chré.* 1900, pp. 252-258, and by Herbert Cook, in the *Chron. d'Arts*, 1900, pp. 42-43, 53-54, 59-60.

ARCHAEOLOGICAL DISCUSSIONS

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN RECENT PERIODICALS

GENERAL AND MISCELLANEOUS

The Development of the Grist-mill.—In *R. Arch.* XXXVI, 1900, pp. 17-44 (15 figs.), L. Lindet continues his article on the grist-mill. He describes the mills of the Greeks and Romans turned by horses or asses, then treats of the hand mill among the Gallo-Romans, the hand mill among modern peoples, and, finally, of mechanical mills, the water mill, invented probably in the first century before Christ, and the wind-mill, which is said to have been imported into France and England from the East in the eleventh century, though it may have been in use earlier.

The Representation of the Gallop in Art.—In *R. Arch.* XXXVI, 1900, pp. 216-251 (46 figs.), S. Reinach discusses the different attitudes given to galloping animals in art. He makes four divisions: (1) the *canter*, in which one hind foot is on the ground, the other three being in the air; (2) the *cabré fléchi*, in which both hind feet are on the ground and both fore feet raised high in the air; (3) the *cabré allongé*, like the preceding, except that the fore feet are raised less high and the whole animal is more stretched out, so that the hind feet extend behind the body and the fore feet before it; and (4) the *galop volant*, in which all four feet are in the air and stretched respectively before and behind the body. Of all these the first is the only one which instantaneous photography shows to be true to nature. The other four attitudes are, to be sure, sometimes taken by horses and similar animals, but not in galloping. Assyrians and Egyptians used only the second and third (the Assyrians only the third) attitudes in representing galloping horses. The first attitude (*canter*) was invented in Greece about the middle of the fifth century, and appears in the frieze of the Parthenon, but is soon given up in favor of the second attitude. The two rearing attitudes (the second and third) are in exclusive use in Roman and mediaeval art, and in modern art until the fourth attitude was invented (probably by some English engraver), in the latter part of the eighteenth century. In reality this attitude is peculiar to jumping. The correct representation of the galloping horse has been introduced in art only since the artists began to study instantaneous photographs. The article is con-

tinued, *ibid.* pp. 441-450 (15 figs.). A possible connection between Mycenaean art and the art called Merovingian is suggested. In Mycenaean art the *galop volant* is constantly represented, often carried so far that the curve of the back is concave (*galop concave*). Numerous examples are given, and instances are pointed out in which this art comes in contact with the art of other races.

The Evolution of Decorative Motives.—In the *American Architect and Builder's News*, April 14, 1900, pp. 11-12, Professor Hamlin continues his articles on the Evolution of Decorative Motives. The present article treats of the spiral scroll in prehistoric, Egyptian, Assyrian, Phoenician, and Greek art. The conclusion is that this motive was suggested chiefly by coiled cords and wires, and that it originated independently in the eastern and western hemispheres.

Ivories at the Paris Exposition.—In *Gaz. B.-A.* XXIII, 1900, pp. 479-494 (8 figs.), P. Frantz Marcou writes of the ivories gathered from various places and exhibited in the *exposition rétrospective de l'art français*, at the Paris exposition. The objects described range from a Greek box in the form of a head of the style of the fifth century B.C. to needle-cases and tobacco-boxes of the time of Louis XVI. The styles of the different periods from Byzantine times are briefly characterized.

Engraved Bronzes from Hallstatt.—In *Jh. Oesterr. Arch.* I. III, 1900, pp. 32-39 (4 figs.), M. Hoernes makes corrections and additions to the description of two bronzes already published—the first a vase (No. 25764 in the inventory of the prehistoric collection of the Royal Museum of Natural History), the second a sword-sheath (*Mith. C. Comm.* N. F. I, 4, Taf. ii). On the vase has been discovered a double concentric row of figures, previously overlooked, the outer line being composed of animals, the inner one containing also human figures. The scheme of arrangement recalls the two cylixes by Nicosthenes in the Berlin Museum. On the sword-sheath it has been found that the group near the point consists of three figures engaged in a struggle, and not of two alone, as was supposed.

Archaeological Comment on the Anthology of Codex Salmasianus.—In *Philologus*, LIX, 1900, pp. 305-311, Julius Ziehen comments on the following passages of the Anthology of Codex Salmasianus: c. 93, c. 238, c. 247 (with c. 32), c. 310, c. 274, c. 282, c. 319 and 320, c. 356, c. 259, c. 155. The article is a continuation of the 'Archaeological Notes on the Latin Anthology,' in the *Festschrift für Otto Benndorf*, pp. 49 ff.

On the Topography of the Thracian Bosphorus.—In *Jh. Oesterr. Arch.* I. III, 1900, Beiblatt, pp. 74-78 (1 cut), Franz Frh. v. Calice offers some corrections to the article on the Thracian Bosphorus in the Pauly-Wissowa *Realencyclopädie*.

EGYPT

Consecration of the New Temple of Phtah.—In *C. R. Acad. Insc.* 1900, pp. 113-123 (pl.), G. Maspero publishes an inscribed stele from Karnak. It gives the details of the consecration of a new temple of the Theban Phtah by Thutmosis III. This temple was restored by Seti I, and its inscriptions defaced by Khuniatu. Maspero studies the inscription in detail, noting the parts more or less adroitly restored, and reconstructing, so far as possible, the original reading.

The Wooden Box from Kahun.—In *Athen. Mitth.* XXIV, 1899, p. 486, F. von Bissing argues that the wooden box from Kahun (*Athen. Mitth.* XXIII, 1898, p. 242) is of the time of Amenophis III or IV, *i.e.* the end of the eighteenth dynasty. He also criticises Petrie's dating of the scarabs in *Kahun*, pp. 31 ff., and his *History*, p. 230.

Greek Titles in Ptolemaic Egypt.—In *Rhein. Mus.* LV, 1900, pp. 161–190, Max L. Strack writes of the Greek official titles in the Ptolemaic kingdom, deriving his material from papyri and inscriptions. A careful list of the numerous titles is given.

The Southernmost Milliarium in the World.—In *C. R. Acad. Insc.* 1900, pp. 78–83, Seymour de Ricci publishes a milestone with Greek and Latin inscription found in 1895 by Borchardt at Abu-Tarfa, 67 km. south of Philae. The inscription is very fragmentary. It is restored to read: [Imp(erator) Caes(ar) div(i) Nervae | f(ilius) Nerva Traianus Aug(ustus) | Germ(anicus) Dacic(us) tribun(icia) pot[est]at(e) [VII i]m[p(erator) III] co(n)s(ul) V | p(ater) p(atriciae) | V[ibi]o Maximo | [p]raef(ecto) Aegy(pti) | a Philis XXXII | ἀπὸ Φιλῶν | [μ(ίλια) π(ασσοῦν) Δ]Β. | ἀπὸ Ὁ[μβου], | ab Om[bo n] μ(ίλια) π(ασσοῦν) B. It marked the spot 33 miles from Philae and 2 miles from Ombos. It is dated by the name of C. Vibius Maximus, who was Prefect of Egypt 103 and 104 A.D.

BABYLONIA AND ASSYRIA

Chronological Illusions and Deceptions.—In *R. Arch.* XXXVI, 1900, pp. 4–16, J. Oppert attacks and refutes the assumptions made by Lehmann in his *Zwei Hauptprobleme der altorientalischen Chronologie und ihre Lösung* and adopted by Fossey, *R. Arch.* XXXIV, 1899, pp. 363 ff. Assyrian records are shown to have been arbitrarily used and even altered, while dates based upon the assumption of accurate knowledge of Egyptian chronology are shown to be of little or no value.

The Stele from Susa.—An article in the *Weekly Times* (London), January 12, 1900 (cf. *R. Arch.* XXXVI, 1900, pp. 149–150), gives the results of Father Scheil's study of the Stele from Susa. (*Am. J. Arch.* 1899, pp. 246 ff.) The stele is Babylonian, not Elamite, in origin, and was erected by Naramsin, son of Sargon, king of Akkad, who conquered Elam (Anzan) about 3750 B.C. It was probably erected at Susa by Naramsin and afterwards appropriated by the Elamite king Sutruk-nakhunta, who probably reigned about 1300 B.C.

PHOENICIA AND SYRIA

The Era of Alexander the Great in Phoenicia—In *R. Ét. Gr.* XII, 1899, pp. 362–381, Jules Rouvier discusses the era used for dating at Tyre and Ace in the fourth and third centuries B.C. He concludes that (1) the era of the Seleucidae was not introduced in Phoenicia before the conquest of the country by Antiochus III at the beginning of the second century B.C.; (2) the cities of Tyre and Ace, in the fourth and third centuries, before 280, employed an era of Alexander, dating from the battle of Issus, 333 B.C.; (3) all dates on coins of Alexandrian type of Ace and Attic didrachms of autonomous types of Tyre are reckoned by this era.

The Municipal "Honorarium" at Palmyra.—In *R. Arch.* XXXVI, 1900, pp. 126–131, Isidore Lévy discusses the Palmyrean inscription pub-

lished by de Vogüé, *Syrie centrale, Inscriptions sémitiques*, No. 95. The translation is given as follows: Ligra (?) of the blessed spring. Bolana, son of Azizou, son of 'Azizou, son of Še'ila, has made (it) during his two epimelesiae; (the works) have been executed by his care. The ἐπιμελησία is a public office. Evidently the Hellenic and Roman custom of the *Honorarium*—that public officials should erect some building or carry out some public improvement for the city—had been introduced at Palmyra.

ASIA MINOR

The Water Works of Smyrna. II.—Four distinct constructions have been traced which brought water to Smyrna from the south: one from Ak Bunar, and the others from nearer hills across the Meles river. The first, a covered channel of masonry, leads to the temple of the Acraean Zeus, and dates from about 80 A.D. The second, the Osman Aga aqueduct, of similar construction, was built in the fifth or sixth century after Christ. It crosses the Meles by a picturesque bridge of brick and stone. The Vezir Su aqueduct is a line of earthen pipes laid in 1674, at a lower level. These two are still in use. Two lines of earthen pipes uniting near the city, which have now nearly disappeared, date from Byzantine times. One of them crossed the Meles by an inverted siphon. There are rainwater reservoirs in the citadel hill, the largest of them probably built by the exiled Greek emperor about 1225. Lastly, the upper city is tunnelled with horizontal passages leading to the springs in the heart of the hill. (G. WEBER, *Jb. Arch. I.* XIV, 1899, pp. 167–188; 19 cuts.)

The Historic Topography of Lycia.—In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 37–68, E. Kalinka has a valuable discussion of our present knowledge of Lycian topography. The article is republished with some alterations from the *Kiepert-Festschrift*.

GREECE

ARCHITECTURE

Acroteria.—**The Temple of Didymaeon Apollo.**—In *R. Ét. Gr.* XII, 1899, pp. 438–448, Henri Lechat gives a summary of Benndorf's article on the origin of acroteria (*Jh. Oesterr. Arch. I.* II, 1899, pp. 1–51), and of Hanssoulhier's article 'Caligula et le temple d'Apollon Didyméen.' (*Rev. de philologie*, XXIII, 1899, pp. 147–164.) The temple, after being destroyed by fire, was begun anew toward the end of the fourth century B.C. The work continued, with interruptions, for centuries, but was never finished. Inscriptions show that the sculptures and mouldings of the frieze and dentils were made between 37 and 41 A.D.

The Treasuries of Cnidus and Siphnus at Delphi.—*B.C.H.* XXII, 1898, pp. 586–593, contains a paper read December 14, 1898, at the French School at Athens by Director Homolle on 'The Treasuries of Cnidus and Siphnus at Delphi.' (Cf. *B.C.H.* XX, 1891, pp. 581–602.) The Treasury of Siphnus certainly stood near the Treasury of Cnidus, just before those of Thebes, Athens, Potidaea, and Syracuse. It was without doubt of marble with sculptured decorations. The position of the Theban Treasury can be fixed by foundations not far from the Treasury of Cnidus, near which many stones with decrees in favor of Thebans have been found. Between these foun-

dations and the Treasury of Cnidus are traces of a building. Among the fragments of the Treasury of Cnidus have been found those of another monument of much the same size and so like it that it is hard to distinguish between them. The fragments of caryatids, when brought together, showed that there had been four figures, forming two corresponding pairs, and that these differed in a number of particulars. All these indications agree with our information about the Treasury of Siphnus, while the close resemblance to the more magnificent Treasury of Cnidus explains the phrase of Herodotus: ὁμοία τοῖς πλουσιωτάτοις. Of interest for the history of architecture is the appearance in the sixth century of the caryatid, and the prompt imitation of the Asiatic by the insular Greeks.

Ionic Capitals in Asia Minor.—In *Harvard Studies in Classical Philology*, X, pp. 29 ff., William N. Bates examines the statement made by Chipiez in his '*Histoire critique des origines et de la formation des ordres grecques*' and repeated by Collignon in his *Manuel d'archéologie grecque*, that the volutes of Ionic columns in Asia Minor were generally connected by a straight line. Examination of the different Ionic capitals from Asia Minor which are known shows that the statement is incorrect. Moreover, in Asia Minor, as in Greece proper, the Ionic capitals with volutes connected by a depressed line are usual down to about 200 B.C., and after that date those with volutes connected by a straight line prevail.

The Mausoleum of Halicarnassus.—At the March meeting of the Berlin Arch. Gesellsch., Adler discussed the Mausoleum. Designed by Mausolus himself to be the central feature in his new and well-planned coast city, and to embody the perpetual divinity of the founder, it was of a character quite foreign to Greek ideals, and owed its extraordinary fame less to size than to originality. It was the first great artistic monument in which distinct parts were placed one above another. The lion tomb of Cnidus and the 'Pericleum' at Xanthus precede it, while a monument at Mylasa, with burial-chamber, open chapel, and pyramid of steps, forming three stories, is the best among many imitations. Trendelenburg objected to the excessive height, more than fifty feet, assigned to the lower division, and favored accepting Hyginus's figures rather than Pliny's for the entire height (80 feet as against 140 feet). (*Arch. Anz.* 1900, pp. 21, 22.)

The Hellenistic Stage and its Decoration.—A series of proofs resting on extant ruins, vase paintings, terra-cottas, and literary allusions shows that a scene or stage-background of column-architecture in several stories with a box-like stage open only in front, was in use in the theatres from Italy to Asia Minor, and from imperial times as far back as the fourth century B.C. In the East this stage was placed above the older proscenium with its columns, 10 to 12 feet high. When adopted in the west it was lower, being influenced by the native Italian farce stage, a low platform open at the sides and reached from the orchestra by steps. As the legitimate drama developed and reached its fixed form in Athens toward the close of the fifth century, spreading thence to all parts of the Graeco-Roman world, so its setting, the stage, must also have been given its universally accepted form at Athens and before 400 B.C. The year 427 marks the point at which the plays themselves change from those appropriately acted in the orchestra to those requiring the modern arrangements, including a curtain—for there is plain evidence of this as well. From that time tragedy and comedy

appeared on what was practically our modern stage. The dithyramb or music drama, with its chorus of fifty, continued to be presented in the orchestra in front of the proscenium until in Roman times it too retired to the stage, leaving the arena to gladiators and wild beasts. (E. BETHE, *Jb. Arch. I.* XV, 1900, pp. 59-81; 13 cuts.)

SCULPTURE

Heracles and Omphale. — In *R. Arch.* XXXVI, 1900, pp. 99-114, A. de Ridder discusses the bronze group from the acropolis at Athens published by him *J.H.S.* 1896, pp. 401-422 (pls. i, i bis), *R. Ét. Gr.* 1898, pp. 182-183 (fig.), and more fully discussed by Savignoni, *Mon. Antichi*, VII, pp. 277-376 (pls. viii, ix). He now sees in it a mystic marriage of Heracles with a person who appears in the current mythology as Omphale, and in the legend and ritual of Cos as a "Thracian woman," daughter of Alcipus, according to Plutarch. The story of the conquest of the Meropes at Cos by Heracles, his marriage with Alciope or Chalciope, and the birth of her son Thessalus, points to northern Greece. The myth reached Cos and, in a somewhat different form, Lydia by way of Chalcis. The bronze group, which is of Chalcidian origin, represents, then, a purely Greek myth.

Some Representations of Poseidon. — At the November (1899) meeting of the Berl. Arch. Gesellsch., K. Wernicke discussed four representations of Poseidon: the archaic bronze statue with dedication, recently found near Plataea; the onyx cameo at Vienna; an Etruscan scarab marked *Nethums*, in the Cabinet des Médailles; and a marble statuette in Dresden. He conjectures that the second is copied from the Isthmian cult-statue, probably a work of Lysippus, the third from a Greek Theseus, and the last from the early Hellenistic bronze statue at Anticyra, in Phocis. (*Arch. Anz.* 1899, 4, pp. 199-201; cut.)

The List of Olympic Victors. — In *Hermes*, 1900, pp. 141-195, C. Robert discusses the list of Olympic victors from Oxyrhynchus (see *Am. J. Arch.* 1900, p. 346). After some general remarks on the papyrus fragment itself, he treats of the Olympic games and their arrangement, then of the information to be derived directly or indirectly from the papyrus concerning the history of Greek literature, and finally of the new light thrown on the history of Greek art. Each line of the papyrus is carefully discussed, and the information from other sources bearing upon the questions raised by the new list is critically examined. The activity of Pythagoras of Rhegium is seen to extend from at least as early as 480 B.C. to 448, that of Myron from (probably) at least as early as 476 to 448, that of Polyclitus to have begun as early as 452, probably even before 460. The Hera of Argos is therefore a work of his old age. Polyclitus and Naucydes were sons of Patrocles. Polyclitus had two sons, one of whom was named Patrocles. He in turn had a son, the artist Daedalus. That there was a younger Polyclitus is now certain. The ascription of works to him and to the elder Polyclitus is discussed. It is shown that Canachus and Aristocles belong to the later sixth century, while Sostratus belongs before the middle of the fifth century. These results are derived from the discovery that Ptolemy was active in 476 B.C. Numerous other matters connected with the history of Greek sculpture are touched upon or discussed. A brief discussion of the papyrus by H. N. Fowler is in the *Western Reserve University Bulletin*, April, 1900, pp. 28-37.

The Parthenon Frieze.—In *Jb. Arch. I.* XV, 1900, pp. 42-49 (4 cuts), W. Passow treats three of the Parthenon slabs with horses, west frieze III and XII and north frieze XLII. In each of these groups the reins are held not by the rider but by an attendant who stands behind the horse, the position of the fingers showing where the painted reins passed. In the first slab, the rider who stands before the horse with head turned away and both hands raised, is measuring off the once painted fillet which he is about to bind about his head. Bronze or painted fillets are indicated on many of the figures.

A Greek Portrait Statue in the Louvre.—In *Jh. Oesterr. Arch. I.* III, 1900, pp. 78-93 (2 pls.; 3 process-prints; 4 cuts), F. Winter publishes the statue of a poet which he holds to have its origin in an Attic original of the fifth century B.C. A positive identification is not attempted, though it is suggested that Ion of Chios may be the poet represented.

The Hera of Polyclitus.—At a meeting of the Hellenic Society, June 15, 1900, Charles Waldstein discussed the Hera of Polyclitus. His chief purpose was to establish the identification of the "Head of Bacchus" (No. 140 in the British Museum) with the Hera of Polyclitus by means of an Argive coin. Incidentally he discussed other theories, spoke of the tendency to represent some deities, but not Hera, as youthful after the fifth century B.C., and laid stress upon the importance of the sculptures found in the American excavations at the Heraeum. (*Athen.* June 23, 1900.)

Corinna by Silanion.—In *R. Arch.* XXXVI, 1900, pp. 169-175 (2 pls.; 2 figs.), S. Reinach republishes the statuette at Compiègne, previously published by him in *R. Arch.* XXXII, 1898, pp. 161-166 (pl. v) (cf. *Am. J. Arch.* III, 1899, p. 121), and defends his identification of it with the Corinna of Silanion against the doubts expressed by Helbig, *Führer*, 2d ed., Vol. II, p. 451, and Amelung, ARNDT-AMELUNG, *Einzelverkauf*, Nos. 1188 and 1189.

Meleager after Scopas.—In *The Harvard Graduates' Magazine*, VIII, 1900, pp. 485-489 (pl.), Richard Norton publishes and discusses, under the name of 'The Harvard Meleager,' the armless and legless statue from Santa Marinella (*Not. Scavi*, 1895, p. 196; REINACH, *Répertoire de la statuaire*, II, p. 555, 6), now in the Fogg Art Museum of Harvard University. The head is even better than that in the garden of the Villa Medici, and presumably more like the original by Scopas. In a note, other acquisitions of the museum are mentioned.

A Statue by Lysippus.—In *C. R. Acad. Insc.* 1900, pp. 8 f., S. Reinach, after brief mention of the latest number of the *Materials for Archaeology in Bulgaria* (Sofia, 1899, in Bulgarian) and the inscriptions and reliefs therein published, calls attention to the fact that E. Preuner has shown that the inscription of the Daochos statues (more particularly of the statue of Hagias) at Delphi is identical with an inscription known from the papers of Stackelberg, and that Stackelberg's copy has the signature of the artist Lysippus. This copy was made at Pharsalus, and it is probable that the dedicatory set up duplicate statues at Pharsalus and Delphi. Perhaps the statue at Delphi, which is of marble, is a contemporary copy of a bronze original at Pharsalus. At any rate, it is clearly of the time and school of Lysippus.

Alexander's Hunt.—*B.C.H.* XXII, 1898, pp. 566-569, contains a report of a paper read at the French School at Athens on November 30, 1898, by P. Perdrizet, on 'The Venatio Alexandri at Delphi.' The *ex-voto* was dedi-

cated by Craterus II, probably between 300 and his death about 270-265. It is certain that neither Lysippus nor Leochares was present. The incident may have taken place after the taking of Babylon, but the exact place and date are hard to fix. An intaglio of Roman period belonging to Mr. A. J. Evans, to be published in *J.H.S.*, has a better claim than any other ancient monument to be regarded as a copy of the group at Delphi.

The Apollo Stroganoff.—In *Athen. Mitth.* XXIV, 1899, pp. 468-484. G. Kieseritzky defends the genuineness of the Apollo Stroganoff against Furtwängler (*Meisterwerke*, pp. 659-662). A support for a partly raised foot is found in genuine bronzes in the British Museum and elsewhere. The absence of the ancient patina is not strange in a bronze discovered nearly one hundred years ago. The Stroganoff bronze was found in a very bad condition, and the whole process of its restoration is carefully traced by Kieseritzky. Traces of the original gilding still remain. The statue still shows traces of the fine engraving, whose absence was said to prove the forgery. Careful cleaning has brought to light a rectangular plate belonging to an ancient correction of a fault in the casting. The break in the aegis is perfectly natural. The figure therefore remains an important guide in the restoration of the Apollo Belvedere.

Votive Reliefs representing Nemesis.—At the French School at Athens, December 28, 1898, P. Perdrizet discussed 'Greek Votive Reliefs representing Nemesis.' Four reliefs were described: (1) a fragment from Gortyna in the British Museum (*Catal.* I, 794); (2) a relief from Piræus in the Louvre. These two have the serpent as an attribute of Nemesis, and represent the goddess trampling a man under foot. (3) A relief in the Museum of Gizeh, showing the goddess, winged, in a short tunic, and attended by a gryphon. She is running or flying as the pursuer of crime. (4) The relief of Andriake (Petersen, *Reisen in Lykien*, II, p. 42) does not represent Serapis and Pluto, but rather Nemesis and Tyche, who are also more appropriate patrons for a *granarium*. (*B.C.H.* XXII, 1898, pp. 599-602; pls. xv, xvi.)

VASES AND PAINTING.

Geometric Vases from Greece.—In *Jb. Arch.* I. XIV, 1899, pp. 188-215 (55 cuts), S. Wide continues his treatment of geometric vases. (III Attica.) Attic geometric ware shows two principles of decoration, which are often combined,—the horizontal band, to which the meander especially belongs, and the panel. The former prevails in the thick-edged "Troezen" amphoras, the black-ware amphoras, the large monumental amphoras, and the small-necked ewers; the latter in the wide-necked ewers and the mugs. Of the fifty-seven specimens here given, chiefly from the Ceramicus and Eleusis, some show Mycenaean patterns and a few have affinities with early Attic and Thera ware. The fourth, and concluding, part of Wide's discussion is in *Jb. Arch.* I. XV, 1900, pp. 49-58 (19 cuts). Twenty-one specimens, chiefly Attic, of vases influenced by Mycenaean art are discussed. Some are distinguished from real Mycenaean ware only by the quality of the glaze. The revived geometric art which followed Mycenaean art, less naive than the primitive geometric art of Greece and other countries, developed four successive styles in Attica so rapidly that all are represented together in graves. Comparison of the conventionalized animal forms with

the flat metal figures of Olympia perhaps places the later styles not earlier than 900 B.C. The entire period was comparatively brief, as the monotony of the ornament could not long compete with the more interesting variety of motives that were being introduced from the east.

The Ship on a Geometric Vase.—The ship on a geometric vase published by A. S. Murray, *J.H.S.* XIX, there called a bireme, is according to Pernice a single-tier vessel, with the oars on both sides represented, no other vessels being known at the time of geometric vases. The scene is the seizure of a woman, possibly mythological. (February meeting Berl. Arch. Gesellsch. *Arch. Anz.* 1900, p. 19.)

Studies in Older Greek Art, II.—The Caeretan Hydrias.—As the Netor vase (*Ant. Denk.* I, pl. 57) is related to the *poros* pediments of the Acropolis (600–550 B.C.), and the Clazomenae sarcophagi to the treasury of the Cnidians at Delphi, so the black-figured hydrias found at Caere closely resemble the sculptures of the old temple of Artemis at Ephesus. Literary traditions which connect the names of Croesus, Theodorus of Samos, and the old Artemisium give the date about 550 B.C., and together with numerous points of contact in style, suggest Samos as the place of origin of the hydrias. A taste for caricature connects them with the widespread Samian terra-cottas (*Jb. Arch. I.* 1899, pp. 73 ff.) and their close study of nature and free, pictorial treatment of surfaces, with the old Samian or Fikellura ware. (F. WINTER, *Jb. Arch. I.* XV, 1900, pp. 82–92; 6 figs.)

Boeotian Amphorae with Reliefs.—In *B.C.H.* XXII, 1899, pp. 497–519 (7 cuts), A. de Ridder continues his account of Boeotian amphorae with reliefs. (See *Am. J. Arch.* III, 1899, p. 610.) Vase D is similar to C. The chief band on the body of the vase shows at the left a warrior driving three bulls, in front of them a kneeling warrior; to meet these persons come from the right four warriors with spears. The band above shows four bulls. The decoration of the neck is badly preserved. At the top are five cocks. The principal decoration shows a warrior, apparently in the act of stabbing an opponent. This central figure is almost destroyed, but seems to have been behind a tripod. At the right is a woman who seems to have held a fillet. The scene is interpreted as Heracles killing Cygnus in the presence of the priestess of the Pagasaean Apollo. [C and D are now in the Museum of Fine Arts in Boston.] Vase E is a fragment from the neck of a somewhat smaller vase, showing the upper part of two women like those on C. These vases are decorated by filling in an outline traced by a sharp point, and not by the use of moulds. Everything shows that they are made in Boeotia. The designs are those found on other Boeotian vases and bronzes. The decoration is inspired by metal models. All signs point to Chalcis as the source, and this explains the similarity to the works of Thera and Rhodes, which are early connected with Boeotia. It is the Mycenaean art, rejuvenated by contact with the East. The vases are to be dated about 600 B.C.

Amphiaras on a Corinthian Vase.—In *Athen. Mith.* XXIV, 1899, pp. 361–378 (4 cuts), F. Studniczka discusses the fragment of a Corinthian vase from Aegina, published by Pallat in *Athen. Mith.* XXII, p. 321. The man advancing to the right is not Heracles, but is shown by the inscription to be Τηλέστροφος, an hitherto unknown name. The winged animals are not griffins, but horses, as is shown by the name Θόας, borne by one of the

horses of Amphiaraus in the epic. The other inscription could be restored Δίας, the name of the other horse. As another fragment shows that the chariot contained a man and woman, it is probably the bringing home of Eriphyle, rather than the departure of Amphiaraus for Thebes, which is represented. The fragments confirm Pliny's statement as to the importance of Corinth in the early history of Greek painting. Studniczka protests against the view that all progress in vase painting comes from the East. Under Chalcidian, Corinthian, and Attic influence vase-painting developed independently at home, especially in the black-figured technique. The abundance of mythical types and scenes, which are almost unknown in Asia Minor, is a further proof of this.

The Aristonophos Vase.—At a meeting of the Oxford Philological Society, May 18, 1900, G. C. Richards explained the inscription on the seventh century vase from Caere in the Capitoline Museum by suggesting that it be read Ἀριστόνοος ἐπό(η)σεν, the sign between the two omicrons in the maker's name being regarded as a superfluous omicron crossed out by a line drawn through it. (*Cl. R.* June, 1900, p. 264.)

The Golden Dog of Zeus.—*B.C.H.* XXII, 1898, pp. 584–586 (1 cut), contains a report of a paper read at the French School at Athens, December 14, 1898, by P. Perdrizet on 'The Golden Dog of Zeus.' The Cretan legend of this dog and its theft by Pandarus is represented, as far as known, only on two black-figured Attic vases of the end of the sixth century. One is a cup from Camirus in the Louvre (Pottier, *Vases antiques du Louvre*, I, pl. 17; Bartlett, *Hermes*, 1898, p. 638). The other is the cover of a pyxis from Boeotia in a private collection at Athens. This is published after a drawing of Gilliéron. It shows, like the Louvre vase, the recovery of the dog by Hermes, and the flight of Pandarus, in the presence of the daughters of Pandarus and three goddesses, Athena, Hera, and probably Aphrodite or Artemis.

Two Attic Amphoras in Madrid.—In *Jh. Oesterr. Arch.* I. III, 1900, pp. 62–72 (4 cuts), P. v. Bieńkowski publishes (1) a black-figured amphora, the previous publications of which by Minervini and Brunn are inadequate. The vase disappeared for a long time, but in 1882 it was found to be in the archaeological Museum at Madrid. The technique is that of the last decades of the sixth century B.C., and the specimen is an excellent one. The subject of the scene on the front of the vase is the slaughter of Eurystus and his sons by Heracles. On the back Heracles is represented feasting. The other vase (2) is an amphora signed by Andocides. Drawings of this have already been published by R. Norton, *Am. J. Arch.*, First Series, Vol. XI, figs. 3 and 4.

The Birth of Plutus on a Vase from Rhodes.—In *R. Arch.* XXXVI, 1900, pp. 87–98 (cut), S. Reinach publishes the chief painting on an Attic amphora found on the slope of the Acropolis of Rhodes in 1894, now in the museum at Constantinople. The work is somewhat careless, but good. Gilding is freely used, and there are touches of white. The vase belongs to the last years of the fifth century B.C. Gaia, rising from the bottom of the picture, holds up an infant, seated on a cornucopia, to Demeter. Other persons present are Cora, Aphrodite, Triptolemus, seated in his chariot, Hermes, Iacchus, and two females, possibly Peitho and Hecate. The scene is the birth of Plutus. The infant and the Demeter resemble the Plutus and Eirene of Cephisodotus. Probably Cephisodotus was inspired by some painting which also served as inspiration for the vase painter.

A Laocoön Scene.—The Laocoön vase fragments published in the *Mon. Antichi*, 1899, by M. Jatta give the scene in the sanctuary of the Thymbraean Apollo, after the death of the two sons. The serpents are twined about the statue of the god while the father and the mother with raised axe are present. The influence of Sophocles's tragedy is evident. (R. ENGELMANN, Berl. Arch. Gesellsch. November, 1899, *Arch. Anz.* 1899, p. 197.)

The Use of the Feather in Greek Vase-painting.—The raised line of glaze found chiefly in the outlines of red-figured vases, often a double line with a slight groove between the parts, was undoubtedly put on with a painter's feather, one of the very small and nearly symmetrical pointed feathers which grow, one on each wing, on some birds of the snipe and swallow families. This instrument, probably of Ionic or island origin, and not unknown in black-figured technique, was first systematically adopted in Athens as a part of the red-figured apparatus by Andocides. It was used, like the stylus in black-figured work, to define parts of the contours and for lines within the figures. Its use is especially characteristic of the best period of the severe style. A vase-painter using the feather instrument is represented on a fragmentary cylix, probably by Euphronius, in the possession of the writer. (P. HARTWIG, *Jb. Arch. I.* XIV, 1899, pp. 147–167; 1 pl.; 6 cuts.)

Summaries of Articles on Vase Paintings.—In *R. Et. Gr.* XII, 1899, pp. 487–494, Henri Lechat, in his 'Bulletin archéologique,' gives summaries of five articles on vase paintings: (1) G. Karo, 'Notes on Amasis and Ionic Black-figured Pottery' (*J.H.S.* XIX, 1899, pp. 135–164; pls. v, vi). (2) C. Robert, 'sopra i vasi di Polignoto' (*Mon. Antichi*, IX, 1899, pp. 5–30; pls. i–iii). Robert publishes and discusses three vases signed by Polygnotus, an Attic vase painter of the fifth century, belonging to a set of painters later than Euphronius, but not yet influenced by the works of the great Polygnotus and other artists of his time. (3) R. C. Bosanquet, 'Some Early Funeral Lekythoi' (*J.H.S.* XIX, 1899, pp. 169–184; pls. ii, iii). (4) E. Petersen, 'Die Geburt der Aphrodite' (*Röm. Myth.* XIV, 1899, pp. 154–162; pl. vii). (5) M. Jatta, 'Di una pittura vascolare riferibile al mito di Laocoonte' (*Mon. Antichi*, IX, 1899, pp. 193–200; pl. xv), on a red-figured vase from Ruvo in the Jatta collection. (See above.)

Thymiateria.—In 'Εφ. Ἀρχ. 1899, pp. 233–238, K. Kourouniotes publishes (2 figs.) a round, wide-mouthed vase of the form called Kothon in the museum at Athens. Where it was found is not known. The form is that of vases explained as thymiateria (incense-vases) by Pernice, *Jb. Arch. I.* 1899, pp. 60 ff. This explanation is incorrect. Such vases are always represented as covered when they occur in vase-paintings, nor is any smoke represented as issuing from them. In the extant specimens of such vases there is no trace of use as censers.

Paintings on Marble.—In *R. Et. Gr.* XII, 1899, pp. 483–487, Henri Lechat gives a summary of C. Robert, *Kentaurenkampf und Tragödienscene, zwei Marmorbilder aus Herculaneum, nebst einem Excurs über das Heraklesbild in Casa del Centenario* (22nd Hallisches Winckelmannsprogramm, 1898, 44 pp.; 2 pls.). The first painting represents the battle of the centaurs and Lapithae, and the original of it is ascribed by Robert to Zeuxis or his school not long before 400 B.C. The second painting goes back to an original of the second half of the fifth century B.C. The scene represented is, according to Robert, that of Euripides, *Hippolytus*, 704 ff.

INSCRIPTIONS

ῥάκος in Attic Inscriptions.—In Homer and elsewhere ῥάκος and ῥάκιον mean *rags, ragged clothing*. In the temple-inventories of Artemis Brauronia (*C.I.A.* II, 2, pp. 108–135) ῥάκος signifies any article of clothing. The dedication of these had to do with the ceremonies performed by young girls entering upon womanhood. (A. MOMMSEN, *Philologus*, LVIII, 1899, pp. 343–347.)

The Catalogues of Victors at the Dionysia and Lenaea, C.I.A. II, 977.—In the *American Journal of Philology*, XX, 1899, pp. 384–405, Edward Capps discusses the inscriptions giving lists of Victors at the Dionysia and Lenaea, with especial attention to the chronological data contained in them. A more detailed series of ‘Chronological Studies in the Greek Tragic and Comic Poets,’ by the same author, is published in the same Journal, XXI, 1900, pp. 38–61. Here the dates of many poets are discussed and fixed.

Athens and Olynthus in 384–383 B.C.—In *Cl. R.* June, 1900, pp. 279–281, G. F. Hill finds that the inscription *C.I.A.* II, No. 105, relating to a treaty between Athens and Olynthus, belongs to the year 384–383 B.C., not, as assumed by others, to 351–350. The decree *C.I.A.* II, 105b does not belong to the same year.

The Athenian Poet Antiphon.—In *Jh. Oesterr. Arch.* I. III, 1900, pp. 93–98 (2 process prints), A. Wilhelm attempts to restore two fragmentary epigrams by the poet Antiphon which are inscribed on two bases found in the Asclepieum at Athens. The first is published in the Dübner Anthology, III, 216. The second has hitherto remained unnoticed. They both concern the sons of one Glaucias. The family were Acharnians.

Hermes Poloneios.—In the Catalogue of the Epigraphic Museum at Athens [Κατάλογος τοῦ ἐν Ἀθήναις ἐπιγραφικοῦ Μουσείου], I, 1, No. 124 of Ἐπιγραφαὶ ἐπὶ χαλκομάτων is read by Wolters, *Ἑρμοῦ : πολόνειον : [τί]μεσις ΔΔΔ*. S. N. Dragoumes reads: *Ἑρμοῦ : πολονείον : [ν]έμεσις ΔΔΔ*. He interprets it as a *θεατρικὸν πινάκιον* of the priest of Hermes πολόνειος (*πολονήσιος* or *πολούνειος*), i.e. Hermes πολυωφελής, comparing the Ionic *δονήσιος* = *ὠφέλιμος*, and Hesychius s.v. *νέμησις θεᾶς*. (*Athen. Mith.* XXIV, 1899, pp. 455–457; 1 cut.)

ἵππος in Eretrian Proper Names.—In *Hermes*, XXXV, 1900, pp. 326–331, F. Bechtel gives a list of the Eretrian names compounded with ἵππος. These are far too many to be the result of accident, and point to the interest the Eretrians felt in horses. (Cf. *Arist. Polit.* 4, 3, p. 1289b, 36.)

Inscriptions from Acraephiae.—In *B.C.H.* XXIII, 1899, pp. 193–205, Paul Perdrizet continues his publication of the inscriptions of Acraephiae. The article contains eight complete military lists, and notes on one already published (*B.C.H.* XXIII, 1899, p. 93). A list of new or striking names is given. The contemporary archons of Acraephiae and of the Boeotian federation are given, and a tentative arrangement of the lists is attempted. They belong at the end of the third and beginning of the second century, and the latest is earlier than the destruction of Haliartus (171 B.C.) The probable free population of Acraephiae appears to have been about two thousand.

Finances and Chronology of Delphi.—At the meeting of the French School at Athens December 28, 1898, Director Homolle presented ‘Epigraphic Notes on the Financial Administration and the Chronology of the

City of Delphi in the Fourth Century.' The chronology rests entirely on inscriptions and particularly on the accounts of the treasurers contained in two texts furnishing the names of twenty-two archons. (Cf. *B.C.H.* XX, 1896, pp. 197 ff., XXI, 1897, pp. 321-344, 477-496.) The list, however, contains lacunae, and these can only be determined from the accounts themselves. The documents contain the current accounts of the *ναποιοί* with the treasury of Delphi. They have on hand when the series of documents begins 85,000 Aeginetan drachmas. The accounts are balanced at irregular intervals, which seem to coincide with a change in the *ναποιοί* of Delphi. Under the archon Charixenus the college was reorganized, and the whole management placed in the hands of two Delphians. Under Pleiston a new system is introduced, and thirty minae are paid the *ναποιοί* each year, which would exhaust their balance in the hands of the state in twenty-one and a half years. This change indicates that the time of extraordinary expenses has passed, and the *ναποιοί* can estimate their annual expenses more accurately. The series of archons from Pleiston to Maïmalus is continuous. The connection of these events with the contemporary history is also considered.

The second part of the paper is devoted to the chronology of the period, and brings a revision of some of the results obtained by Bourguet. The first series is as follows: Argilius, 358-357; Heracleius, 357-356 (these are the latest dates); Aristoxenus, 356-355; Hierinus, 355-354; Nicon, 354-353; Antias, 353-352; Theucharis, 352-351. There may be a gap between the first three names. After Theucharis there is a gap until the series Damoxenus-Aristonymus, which is now dated from 345-339. This brings Palaius in 339-338, and Damochares in 338-337. Theon is placed in 336-335, and possibly Ornichidas was archon in 337-336. Dion's archonship is in 335-334, and probably Charixenus belongs in 334-333. Caphis's date is settled by the Phocian payment as 331-330. Between Caphis and Pleiston the temple was completed. Hence Etymondas was archon 327-326, and Thebagoras 326-325. Probably then the archons from Eribas to Maïmalus occupy the years 325-315, and the accounts of the *ναποιοί* cover the period from 358-315.

An appendix discusses (1) The accounts of the *ναποιοί*. Two sources are known; the accounts of the treasury of the college, and the account of the fund deposited with the city of Delphi. The former account is shown to include the latter, the *ναποιοί* reckoning the sums drawn from the city in their receipts, and accounting for them in their expenses. (2) The accounts of the *ναποιοί* and the Sacred War. The composition of the college and its activity from 356-351 is shown to accord with the course of events in the war. (3) The Delphian *ναποιοί*. The representative of Delphi is the eponymus of the college during his term, and holds the presidency. A list of those known is given, and it is pointed out that the *ναποιοί* disappears from the Delphian inscriptions about the time in the second century when the priests of Apollo become of importance in the chronology. They seem to have succeeded to the position of the *ναποιοί*. (4) The date of the *Πυθιονίκαι* of Aristotle and Callisthenes is further fixed by an entry in the accounts of the archonship of Caphis (331-330), which seems to refer to its engraving. The work was probably completed before 334, dedicated between 334-331, and officially published in 331-330. (5) The date of the statues of

Daochus and his family is fixed between 338 and 334, when Daochus was heiromnemon of the Thessalians, with the exception of one year (335), during the revolt against Alexander. (*B.C.H.* XXII, 1898, pp. 602-633.)

Monetary Monograms and Artists' Signatures at Delphi.—The publication of the Inscriptions of Delphi is continued in *B.C.H.* XXIII, 1899, pp. 374-388, by Th. Homolle. The article contains: (1) Decrees with monetary monograms. Two of Pellene bear the monogram ΠΕ, and one of Arcadia the monogram Ρ. Homolle believes that the dolphins on the decree for Ecephyllus have reference to the trade or cult of Apollo at Pellene. (2) Signatures of artists. These include Cresilas of Cydonia, Antiphanes of Argos, Daedalus, son of Patrocles of Sicyon, Satyrus of Paros (cf. *Viti.* VII, praef. 12), Sopatrus of Demetrias, and Lycus, son of Satyrus, whose date is fixed at about 300 B.C. by the rest of the inscription, which seems to belong to the offering of the Phocians after the raising of the siege of Elatea by Olympiodorus (Paus. X, 18, 7; 34, 3). Lycus is not mentioned by Loewy or Overbeck.

New Delphian Archons.—In *B.C.H.* XXIII, 1899, pp. 353-369, E. Bourguet adds three names to the list of the Delphian archons of the fourth century. Accepting the dates Theon, 336-335; Dion, 335-334, and Caphis, 331-330, he fixes the years of office of Lycinus and Bathyllus from 334-332, though the order is uncertain. The archon for 332-331 is still unknown. Eribas was in office between Charixenus (330-329) and Pleiston (328-327). Bourguet is inclined to place the archonship of Thebagoras in the vacant year 332-331.

The Decree in Honor of Aristotle.—Witkowski proposes to restore in line 10 of the Delphian decree in honor of Aristotle for α[πὸ Γυλῖδα κ. τ. λ.], ἀ[μφοτέρα νεν]ικηκότων τὰ Πύθια, referring to the musical and gymnastic contests. (*B.C.H.* XXII, 1898, p. 598.)

Epiteles, Son of Soinomus.—In *B.C.H.* XXII, 1898, p. 519, T. H(omolle) publishes a proxeny decree of the Delphians in honor of an Athenian, Epiteles, son of Soinomus, who is mentioned in *C.I.A.* II, 181, where the father's name is incorrectly restored. The latter decree is of 323 B.C., and the Delphian decree is probably of about the same date.

The Senatus Consultum from Delphi.—In *B.C.H.* XXIII, 1899, pp. 303-316, G. Colin completes his discussion of the *senatus consultum* from Delphi. He discusses first the preamble, then the language, and concludes that the document confirms Foucart's theory that these acts of the Senate were translated into Greek in Rome. Among other examples showing the work of a Roman are τί ἡρώτησαν, obviously for *quod rogaverunt*, and ᾧ ἔλασσον for *quominus*. The archon Dionysius of Athens mentioned is shown to be Dionysius μετὰ Παράμονον, already assigned to this year 112-111 by Ferguson.

Epidaurian Inscriptions.—Chr. Blenkenburg's fourth article on 'Epidaurische Weihgeschenke' (*Ath. Mitth.* XXIV, 1899, pp. 378-397) discusses a set of marks found on altars and bases at Epidaurus. They consist of a symbol enclosed in a circle, accompanied by numbers, which are always less than one hundred. These symbols and numbers seem contemporary and late, probably of the fourth century after Christ. The symbols show the god to whom the stone is dedicated. The numbers refer to an inventory. An alphabetical list of the divinities and cuts of thirty-five symbols are given.

At the French School at Athens, December 28, 1898, Cavvadias discussed two inscriptions relative to the worship of Apollo and Asclepius at Epidaurus. They are now published in *Τὸ ἱερὸν τοῦ Ἀσκληπιοῦ ἐν Ἐπιδαύρῳ*, p. 186, No. 1, and are as follows:

[Τῷ Ἀπόλλωνι θύεν βὼν ἔρσενα καὶ ἡμονάοις βῶν ἔρσενα ἐπὶ τῷ βομοῦ τῷ] | Ἀπόλλ[ος] τα[ῦτα] θ[ύεν κ] | αἱ καλὰῖδα τῇ Λατοῖ καὶ τὰρτάμτι ἄλλαν φερν[αν] τῇ θοῖ κριθᾶν μέδι μνον Σ πυρὼν ἡμέδιμνον οἶνον ἡμέτειαν καὶ τὸσσκέλος τοῦ βοὸς τοῦ πράτον τὸ δ' ἄτερον σκέλος τοῖ ἱερομνάμονες | φερόσθο τοῦ δευτέρου βοὸς τοῖς ἀοιδοῖς δόντο | τὸ σκέλος τὸ δ' ἄτερον σκ[έλος] τοῖς φρουροῖς δόντο καὶ τένδοσθίδια.

Τῷ Ἀσκληπιῷ θύεν βῶν ἔρσενα καὶ ἡμονάοις | βὼν ἔρσενα καὶ ἡμονάα[ις] βὼν θέλειαν ἐπὶ τοῦ βομοῦ τοῦ Ἀσκληπιοῦ θύειν ταῦτα καὶ καλὰῖδα ἀνθέντο τῷ Ἀσκληπιῷ φερ[αν] κριθᾶν μέδιμνον Σ | πυρὼν ἡμέδιμνον οἶν[ον] ἡμέτειαν σκέλος τῷ | πράτον βοὸς παρθέντο τ[ῷ] θοῖ τὸ δ' ἄτερον τῇ ἱ[ε]ρ[ο]μνάμονες φε[ρόσθ]ο τ[ῷ] οὔ δε]υτέρω τοῖς ἀοιδοῖς δόντο | τὸ δ' ἄτερον το[ῖς] φρουροῖς δόντο καὶ τένδοσθίδια].

The inscriptions belong to the latter part of the fifth century. The mention of the singers is new, and shows the importance of music in this ritual. Cavvadias believes that these daily hymns to Asclepius have had a direct influence upon the Christian liturgy. (*B.C.H.* XXII, 1898, pp. 598-599.)

The New Inscription from Olympia.—In *Eranos*, III, 1899, pp. 129-148, O. A. Danielsson gives the text of the inscription *Jh. Oesterr. Arch. I. I*, pp. 197 ff., Beiblatt, pp. 197 f. (*cf. Am. J. Arch.* III, 1899, p. 309, where, in line 1, *φυγαδείημ* should be read for *φυγαδείηι*), with commentary on the dialect and meaning.

The Theatre of Perinthus-Heraclea.—*B.C.H.* XXII, 1898, pp. 593-598 (1 cut), contains a paper by Seure on 'The Theatre of Perinthus-Heraclea,' read before the French School at Athens, December 14, 1898. In *Jh. Oesterr. Arch. I.* 1898, I, Beiblatt, pp. 9 ff., Kalinka published a fragment of an inscription built into the old metropolitan church of Heraclea. His restoration is incorrect; and the inscription refers, not to a temple of Hadrian, but to a *προσκήγιον* and *ἀγάλματα* belonging to a theatre. Traces of a large theatre are visible near the town.

Pizos in Thrace.—In *B.C.H.* XXII, 1898, pp. 520-557 (pl. ii), G. Seure continues his account of the emporium of Pizos in Thrace. (See *Am. J. Arch.* 1899, pp. 627 f.) He discusses the edict in detail, showing that it is a special application of a political system of the Roman empire. He adds an examination of the proper names of Pizos. Of 171 inhabitants, 148 are Thracian, 4 Greek, and 15 Roman, the latter showing chiefly names known as common among soldiers.

Dionysus Inscription from Naxos.—In *Hermes*, XXXV, 1900, pp. 339 f., F. Hiller von Gaertringen puts together the inscriptions published by A. de Ridder, *B.C.H.* XXI, 1897, 20, 2 and 23, 8, and reads: [E]ὐθ[ύς] ἰσ[τά]-*ναι* χ[ι]ορὸν [καὶ] ο(ὗ) [λὰς] θύ[ι] ε[σθ]α[ι] Δ[ιονύσ]ω[ι] | Κρον[ίων]ος.

Two Inscriptions from Paros.—In *Jh. Oesterr. Arch. I.* III, 1900, pp. 75-78 (1 cut), A. Wilhelm discusses, with publication of facsimiles, the Parian inscription published by Dittenberger, *Sylloge*², 415. The interpretation of the inscription is furthered by a Latin version of it here published. A copy

of this (the original is now destroyed) was made years ago by Mr. M. K. Krispi at Parikia.

On the so-called Columna Xanthica.—O. Benndorf, in *Jh. Oesterr. Arch. I.* III, 1900, pp. 98–120 (6 process prints; 16 cuts), has a study of this column with reference to its form, and an interpretation of the Greek inscription. The form of the monument is essentially the same as that of the so-called "Harpy Tomb." The date of the Greek inscription is about the middle of the fifth century B.C. The political conditions in Lycia, growing out of the Samian war, 440–439 B.C., might account for such a revolt of the Lycians against Greek ideas as the inscription implies.

A Decree of the People of Ephesus.—In *Jh. Oesterr. Arch. I.* III, 1900, pp. 1–8 (1 process print), Th. Mommsen publishes a decree in honor of Antoninus Pius, found in the theatre at Ephesus. The special interest of the inscription lies in the proclamation of the Proconsul L. Venuleius Apronianus, which is appended to the decree. By this each citizen is to receive a grant of money from the public treasury on the recurring birthdays of the emperor. The governmental relations between the Roman governors and the peoples of the provincial towns are discussed. Reference is made to the inscriptions from Rhodiapolis of the Opramoas monument; and in opposition to the editors of these inscriptions, Loewy and Heberdey, the identity of the office of *Λυκιάρχης* with that of *Ἀρχιερεὺς τῶν Σεβαστῶν* is maintained.

Antioch of the Chrysaoreans.—In *R. Ét. Gr.* XII, 1899, pp. 345–361, Maurice Holleaux discusses the Delphic inscription (*B.C.H.* 1894, pp. 239, 243), mentioning the πόλις ἡ τῶν Ἀντιοχείων τῶν ἐκ τοῦ Χρυσαιορέων ἔθνεος. He finds that the inscription belongs to the last years of the third century, and that the place referred to is Alabanda in Caria. The grounds for this belief are given, with discussion of the history of the time.

An Ilian Inscription.—The inscription in Schliemann's *Ilios*, p. 704 (cf. Haussoullier, *Rev. de Philol.* XXIII, p. 166), is published in a corrected text by Alfred Brückner, who argues that it is not a list of state debtors in general, but rather of senators who owe fines for non-attendance at meetings of the council. (*Athen. Mitth.* XXIV, 1899, pp. 451–454.)

Pergamene Inscriptions.—In *Athen. Mitth.* XXIV, 1899, pp. 485–486, M. Fränkel publishes some brief notes on the inscriptions from Pergamon, published by Conze and Schuchhardt in their report on the recent explorations (*Athen. Mitth.* XXIV, 1899, pp. 97 ff.).

Inscriptions of Asia Minor and Scythia.—In *R. Ét. Gr.* XII, 1899, pp. 382–391, A. E. Contoleon publishes twenty-seven Greek inscriptions. Of these, twenty-six are from Asia Minor. One is an honorary decree from Magnesia on the Maeander, mentioning, among other things, the coinage of small currency. The inscriptions are, for the most part, fragmentary, and their contents honorary, dedicatory, or sepulchral. No. 27, from Tomi (Kustendjé), is the epitaph, in irregular elegiacs, of a native of Syria who had held several offices—including that of *πρωτάρχης*—at Tomi.

The Calendar of the Province of Asia.—In *Hermes*, XXXV, 1900, pp. 332–338, H. Dessau discusses the calendar of the province of Asia in the light of the inscription recently found at Priene (*Mitth. Athen.* 1899, pp. 275 ff.). Among other things, he finds that the oration wrongly ascribed to St. John Chrysostom (Migne, *Patrolog. Gr.* 59, 746 ff.) belongs to the year 387 A.D.

In the intercalary year, 388, the added day was inserted not later than the sixth month, probably, as in the time of Augustus, in that month.

A Thracian Tombstone from Olbia. — In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 80–84 (1 fig.), E. v. Stern publishes the sepulchral inscription of a Thracian, Dizazelmis, the son of Seuthes. The formation of the uncommon name, the existence of which had already been suspected by Tomasehek (*Arch. Ep. Mith.* XV, 107, note 54), is discussed.

New Incantation Tablets. — In *Rhein. Mus.* LV, 1900, pp. 232–271, R. Wunsch publishes twenty Greek and Latin *devotiones* or curses inscribed on tablets of lead and other material. These tablets had been published in various periodicals, and are here collected and discussed, forming a supplement to the author's *Defizionum tabellae Atticae* and *Sethianische Verfluchungs-Tafeln*. The same author, *ibid.* pp. 62–85, comments upon some Attic curse-tablets published by E. Ziebarth, *Nachrichten d. K. ges. d. Wiss. zu Göttingen*, Phil.-hist. Klasse, 1899, pp. 105–135. Two of these (Nos. 21 and 22) are further discussed and republished by Otto Hoffmann, *Philologus*, LIX, 1900, pp. 201–205, who ascribes to them Arcadian origin and a date not later than the third century B.C. Some later curse formulae (of Christian times) are discussed by W. Drexler, *Philologus*, LVIII, 1899, pp. 594–616.

Epigraphical Notes. — In *B.C.H.* XXIII, 1899, pp. 340–352, P. Perdrizet publishes some epigraphical notes, partly correction and comment, and partly new inscriptions. From **Salonica** are five sepulchral inscriptions. The villa Bitzos, near by, contains many inscriptions and sculptures; among the former, a hitherto unpublished list of names, apparently of ephebi. From **Amphissa** are two gravestones from the necropolis. *C.I.G.S.* III, 319, 321, and 322 have been unnecessarily corrected by Dittenberger. The Asclepieum was on the slope of a hill, and once contained a wall covered with decrees of manumission. Fragments of two such decrees are published. There are evidences that marbles have been brought from Delphi to Salona, e.g. *C.I.G.S.* III, 324. The notes from **Delphi** deal with inscriptions already published. The proxy decree for Ecephalus of Pellene (*B.C.H.* XXI, 1897, pp. 578) is given in its complete form. The others discussed are *B.C.H.* XX, 1896, p. 467; XXI, 1897, pp. 414, 415, 419; XXII, 1898, p. 262. From **Athens** is published a fragment from the fourth century. It appears to be part of a list of prytanes.

New Readings in Greek Inscriptions. — In *Jh. Oesterr. Arch. I.* III, 1900, pp. 40–62, A. Wilhelm discusses passages in the following inscriptions: *C.I.A.* II, 1061; IV, 2, 2773^b; *C.I.G.S.* I, 119, 3078; *I.G.S.* I, 217, 644, 757; *I. G. Ins.* I, 58, 925; *ibid.* II, 5, 12, 16, 294, 511; *ibid.* III, 104; *Gr. Dialekt-Inschr.* 1658, 3440; Dittenberger, *Sylloge*², 258, 260, 261; Dumont-Homolle, *Mélanges d'archéologie*, p. 448, note 110^b²⁹; *Fouilles d'Épidaure* 2 = *Gr. Dial.-Inschr.* 3340; Heberdey, *Opramoas*, III, G, lines 2 f.; VII, C, lines 13 ff.; VIII, D, lines 13 ff.; IX, G, lines 10 f.; XII, D, line 2; XII, F, line 9; XIII, E, line 11; XVIII, E, line 7; XX, D, line 6; Kiepert's *Festschrift*, 225; *Athen. Mith.* 1881, p. 304; *ibid.* 1898, p. 496; *B.C.H.* 1882, pp. 452, 461; *ibid.* 1885, p. 146; *ibid.* 1889, p. 183; Michel, *Recueil d'inscriptions grecques*, 510; *R. Ét. Gr.*, 1897, p. 304; *Revue de Philosophie*, 1899, p. 149; Schliemann, *Troja*, p. 262.

GENERAL AND MISCELLANEOUS

Athenian Topography.—In *Berl. Phil. W.* March 3, 17, and 24, 1900, A. Milchhoefer discusses some points of Athenian topography in connection with the so-called Theseum. March 3, he remarks that the inscriptions relating to the cult of Hephaestus were found in the eastern and north-eastern part of the city, not near the so-called Theseum. He then criticises Sauer's reconstruction of the lost pediment sculptures and his interpretation of the extant metopes and friezes. Having shown that these sculptures can hardly have belonged to the Hephaesteum, he interprets the eastern frieze as Apollo in conflict with the Thracian Eleusinians. A scholium on *Iliad* XVIII, 483 ff. (*Schol. Town. ed. Maass*, II, p. 271) mentions among these Clytius, the son of the Cyclops Agriopes. Apollo as slayer of the Cyclopes is discussed. The western frieze is clearly associated with Apollo. The conclusion is, that the so-called Theseum is the temple of Apollo Patrous. The articles of March 17 and 24 are devoted to showing that the Stoa Basileios has not been found near the "Theseum," that the *Κολωνὸς Ἀγοραῖος* must be placed much farther east, and that all the hints of Pausanias, Philostratus, and other ancient writers, as well as the results of recent excavations, go to prove that the "Theseum" is not the Hephaesteum, but rather the temple of Apollo Patrous.

The Site of Ancient Athens.—In *Cl. R.* June, 1900, pp. 274–279, A. W. Verrall discusses Thucydides II, 15, and finds that he asserts that (1) Athens before Theseus might be identified with the acropolis, if that name were taken largely; (2) the portion of it, which was external to the acropolis proper, comprised the southwestern slope by which the citadel was approached; and (3) this external portion can in no case cover any ground which might not, in a loose and popular way of speaking, be regarded as actually pertaining to and included in the acropolis itself. The results of recent excavations are found to agree with these statements. The sanctuary of Zeus Olympius mentioned by Thucydides is not the one on the site of the Olympieum of Pisistratus and Hadrian.

The Topography of Delphi.—At the French School at Athens, November 30, 1898, Director Homolle spoke on 'The Topography of the Sanctuary of Delphi,' with special reference to his previous discussion of this subject, and the article by Bulle and Wiegand. (See *B.C.H.* XXI, 1897, pp. 275 ff., XXII, 1898, pp. 328 ff.) The special subject was the arrangement of the monuments on the Sacred Way from the Bull of Coreyra to the ex-voto of Tarentum. While agreeing in part with Bulle's arrangement, Homolle proposes a new arrangement, which leaves on the left side of the way only the trophy of Aegospotami and the statues of the Epigoni. It is also pointed out that the present course of the Sacred Way was apparently adopted after 460 B.C., and as the trophy of Marathon was erected after the new way was built, it is probably to be connected with Cimon's victories and may well be the work of Phidias. (*B.C.H.* XXII, 1898, pp. 572–579.)

Thessalian Topography.—In the *Annual of the British School at Athens*, V, pp. 20–25 (sketch map), C. D. Edmonds identifies the following sites lying close to the Peneus from Trikkala to Larissa: Ancient Pelinna is modern Palaeo-Gardiki, ancient Limnaeon modern Kortiki, ancient Asterion or Peiresiae modern Vlokho, ancient Pharcadon modern Klokoto, ancient

Atrax modern Sidhero-Peliko, ancient Phacion modern Alifaka, ancient Phaestus modern Zarkos.

The Homeric Thorax. — At a meeting of the Oxford Philological Society, May 18, 1900, J. L. Myres explained the line, καὶ διὰ θώρηκος πολυδαίδαλου ἡρήρειστο as a reference to the scale-armor worn in the Mycenaean age. The line, although an interpolation in the places where it occurs, is probably of early composition. (*Cl. R.* June, 1900, p. 264.)

The Mouth-piece of the αὔλος. — In *Harvard Studies in Classical Philology*, X, pp. 19 ff., Albert A. Howard shows that the passage in Theophrastus describing the way in which the mouth-piece of the αὔλος was made, is really more detailed than has been supposed. The mouth-piece described by Theophrastus was a double reed of the kind used in the modern bassoon, and was made in the same way as it is to-day. The length of the strip of cane from which the mouth-piece was made, as given by Theophrastus, is about twice the known length of the mouth-piece, but this difficulty may be cleared up if we imagine that the cane was doubled upon itself as it is to-day, and as Theophrastus implies it was in antiquity.

Greek Shoes in the Classical Period. — In *Harvard Studies in Classical Philology*, X, pp. 57 ff., Arthur A. Bryant discusses the passages in writers of the fifth and fourth centuries B.C., bearing upon Greek shoes. He takes up the subject under five headings, discussing in turn the custom of wearing shoes in ancient Greece, the social position of the shoemaker, the process of tanning, the tools used, and finally the different kinds of shoes. Wherever there is sufficient evidence he tries to establish the form of each kind of shoe of which the name has been preserved. An index of the words used in connection with the shoemaker's trade, with references to the passages where they are found, follows the article.

The Symbolism of the Apple in Classical Antiquity. — In *Harvard Studies in Classical Philology*, X, pp. 39 ff., Benjamin O. Foster discusses the symbolism of the apple as shown by passages in Greek and Latin writers. He shows that the apple was associated with Aphrodite and sometimes with other gods, as Dionysus and Ge, as a symbol of fruitfulness, and from that it came to be used as a love token. He suggests that the original association of Aphrodite and the apple may have been due to accident arising out of the worship of the goddess of love and the apple tree together. No attempt is made to distinguish between the different fruits which went under the name of μῆλον.

The Ancient Long Jump. — Phaëllus's record of fifty-five Greek feet in the long jump at Delphi, and that of Chionis of fifty-two feet at Olympia, are so greatly beyond any human proficiency in single jumping, even with weights, that the ancient contest must have been a threefold jump. This would require a specially constructed ground, with a soft bed for the final alighting, but firm footing in other parts, such as is actually found in the palaestra at Olympia and at Eretria, but not in the stadium. The pentathlon then began with the jumping contest in the palaestra, was continued with the running and the discus and spear-throwing in the stadium, and finished with the wrestling, probably in the palaestra. There is literary evidence both for the triple jump and for this order of the pentathlon. (KÜPPERS, DIELS and STENGEL: May meeting Berl. Arch. Gesellsch., *Arch. Anz.* 1900, pp. 104-106.)

Pandora.—At a meeting of the Hellenic Society, May 3, 1900, P. Gardner read a paper on the Pandora vase now in the Ashmolean Museum. He maintained that Pandora was a primitive earth-goddess. Miss Jane Harrison read a paper contending further that the "box" of Pandora was a misconception for a *πίθος*, i.e. a large jar used, in this instance, as a tomb. The earth (Pandora) released the spirits of the dead from their tombs. Such spirits were regarded by the Greeks as sources of evil. Pandora, the earth-mother of an early matriarchal system, became the source of evil under the later system of Zeus. (*Athen. May 12, 1900.*)

Archaic Terra-cottas from Crete.—At the French School at Athens, December 28, 1898, Demargne discussed some archaic terra-cotta plaques with reliefs, from the neighborhood of Praesus, in eastern Crete. They belong to a deposit discovered by Halbherr early in his excavations. (*B.C.H. XXII, 1898, p. 602.*)

A Bronze Mirror-case.—A. de Ridder republishes in *B.C.H. XXIII, 1899*, pp. 317-332, pl. ii, a mirror already published in Murray's Handbook of Greek Archaeology (cf. Walters, *Cat. of Bronzes in British Museum*, pp. 41-42, 289). The mirror is in a case, adorned with a relief of Pan and Aphrodite seated on a bench playing a game, which can only be some form of draughts. This association of Pan with Aphrodite seems to date from the latter part of the fifth century, and the mirror seems to be of the early part of the fourth century. The second part of the paper is a discussion of the rendering of perspective by the engraver, and also of his use of a series of fine parallel lines, or hatchings, for shading, etc. The use of shading is traced in the vases, and especially its development after the time of Polygnotus. It is to the time of Apollodorus of Athens, known as *σκιαγράφος*, at the end of the fifth century, when shading was developed in painting, that this mirror is ascribed. The use of fine lines for shading is carried to an extreme on Etruscan bronzes, where its meaning is often totally misconceived.

The Tiara of Saitaphernes.—In the *Mon. Mém. Acad. Insc. (Mon. Piot)*, VI, 1898, pp. 5-59; pls. i-v, M. Collignon argues at length for the genuineness of the "tiara of Saitaphernes," but at the end of his treatise adds an appendix mentioning the fact that among objects *certainly false* from Olbia is a rhyton resembling in style and excellence of workmanship the famous tiara. In spite of this fact, however, it is not certain that the tiara is a forgery, as it exhibits details beyond the knowledge of any maker of false antiques. Henri Lechat gives a summary of this article in *R. Ét. Gr. XII, 1899*, pp. 496-499. In *R. Arch. XXXVI, 1900*, pp. 184-191, Th. Reinach defends the tiara against Furtwängler's attack (*Berl. Phil. W.* February 17, 1900). He defends especially the genii lighting the funeral pyre (personifications of winds), and lays stress upon the difference of style between the modern rhyton from Olbia and the tiara.

Brief Discussions.—In *R. Ét. Gr. XII, 1899*, pp. 448-476 (12 cuts), Henri Lechat, in his 'Bulletin Archéologique,' discusses the following articles: P. Castriotes, 'Ἀρχαϊκὴ κεφαλὴ ἐκ Λυκίας' (*Εφ. Ἀρχ.* 1899, pp. 51-56; pl. iv); B. Graef, 'Zum archaischen Marmorkopf aus der Sammlung Saburoff im Berliner Museum' (*Jb. Arch. I. XIV, 1899*, pp. 87-89; A. Milani, 'L' Artemis di Castiglione della Pescaia' (*Studi e Materiali di arch. e numism.* I, 1899, pp. 119-124; pl. iii), on a new replica of the Artemis from Pompeii

in the museum at Naples; A. Mahler, 'Der angebliche Herakles des Onatas' (*Jh. Oesterr. Arch. I.* II, 1899, pp. 77-80); A. Joubin, 'L'éphèbe de Tarse' (*R. Arch.* XXXV, 1899, pp. 19-33; pls. xiii-xv), which Holleaux criticises severely, deciding that the statue is a work of the end of the fifth century B.C., and represents a diadumenus; E. A. Gardner, 'A Head of Athena, Formerly in the Disney Collection' (*J.H.S.* XIX, 1899, pp. 1-12; pl. i); G. Habich, 'Hermes Diskobolos' (*Jb. Arch. I.* 1898, pp. 57-65, cf. *J. Int. Arch. Num.* II, 1899, 2), the Vatican statue being explained, with help of a vase by Duris, as a discobolus who stands with his discus in hand watching the cast of a competitor; W. Amelung, 'Ueber ein Relief im Museo nazionale romano' (*Röm. Mitth.* XIV, 1899, pp. 3-7; pl. i); A. Chaumeix, 'Fragment de bas-relief grec' (*Mél. Arch. Hist.* XIX, 1899, pp. 159-165; pl. v), the fragment being from a decree-heading of no special importance, not, as Chaumeix thinks, a representation of a philosopher; J. Six, 'Ikonomaphische Studien, XIV; Maussollos, Fürst von Mysien, Satrap von Karien' (*Röm. Mitth.* XIV, 1899, pp. 81-83); Th. Wiegand, 'Ein neues Alexander-porträt' (*Jb. Arch. I.* XIV, 1899, pp. 1-4; pl. i); G. Perrot, 'Le Musée du Bardo à Tunis et les fouilles de M. Gauckler' (*R. Art Anc. Mod.* 1899, ii, pp. 1-18, 99-116), and P. Gauckler, 'Découvertes à Carthage' (*C. R. Acad. Insc.* 1899, pp. 156-165), discussion of three Greek statues representing Demeter, Cora(?), and a canephorus or a dancer; A. Michaelis, 'Eine verschollene Statue des thronenden Zeus; Apollonios' Capitolinischer Jupiter?' (*Jb. Arch. I.* XIII, 1898, pp. 192-200); A. Joubin, 'Un buste thessalien de Gè' (*R. Arch.* XXXIV, 1899, pp. 329-334; pl. xii), to which a note is added at the end of the 'Bulletin' by M. Holleaux; R. Förster, 'Skulpturen von Antiochia' (*Jb. Arch. I.* XIII, 1898, pp. 177-191; pl. xi). Three articles on terra-cottas are also discussed: F. Winter, 'Studien zur älteren griechischen Kunst, I.' (*Jb. Arch. I.* XIV, 1899, pp. 73-78); K. Kourouniotes, 'Σκηναὶ τοῦ οἰκογενειακοῦ βίου τῶν γυναικῶν' (*Εφ. Ἀρχ.* 1898, pp. 211-220; pl. xiii); and that part of his article 'Un temple élevé par les femmes de Tanagra' (*R. Ét. Gr.* XII, 1899, pp. 53-57) in which Th. Reinach maintains that the Tanagra figurines were made at Aulis, and represent Theban women. Holleaux shows that they are really products of Tanagra. The article of E. Babelon, 'Vénus à sa toilette, statuette en calcédoine saphirine' (*Gaz. B.-A.* 1899, i, pp. 360-368), is also reviewed.

ITALY

ARCHITECTURE

Italian Temples.—Under the title 'Pompeiana,' Ad. Michaelis discusses several architectural questions, in *Röm. Mitth.* 1899, pp. 193-212 (7 figs.). The temples of Jupiter, Fortuna Augusta, and Vespasian support, on the whole, the statement of Vitruvius that in Italian temples the depth of the cella was equal to that of the portico. The temple of Zeus Milichius, which has the same characteristic, is identical in several respects with the Ionic temple at Pergamum, and is evidently the result of Hellenistic tradition. In the Apollo temple the above-mentioned rule has not been followed; this is, in fact, a Greek temple, as is indicated by the position of the altar and the existence of a two-storied colonnade. The high podium is not peculiar to the Italian temple. The Ionic capital of the Pompeian tufa

period, with four identical sides and angular volutes, occurs also in Greece. Perhaps the younger Polyclitus was the inventor. Finally, on the analogy of the old Saxon house, the *alae* of the Italian house are explained as a means of admitting light, at a time when houses were isolated and the atrium was quite covered. There were probably side doors here, as well as windows.

SCULPTURE

A Likeness of Vitellius.—In *Röm. Mitth.* 1899, pp. 264–268 (1 pl.; 1 fig.), E. Petersen describes a head and bust of Vitellius, found in the Baths of Diocletian about 1870, but left in a cellar until recently. It is one of the best likenesses of the emperor. The bust proper is about a hundred years later than the head, which was slightly reworked in antiquity, perhaps at the time when it was inserted in this bust.

The Adoption of Hadrian.—A relief of the Arch of Beneventum offers an argument to support the theory that Hadrian was adopted by Trajan just before his death. The goddess Roma, greeting Trajan on his return from war, lays her right hand upon the shoulder of Hadrian. That the arch was completed during the reign of Trajan is shown by the representation of the *lictor proximus*, Ulpius Phaedimus, who died a few days after his master. It is the subjugation of Dacia, not Mesopotamia, that is portrayed. (EDMUND GROAG, *Röm. Mitth.* 1899, pp. 269–279.)

Remission of Taxes by Hadrian.—In *Röm. Mitth.* 1899, pp. 222–229 (plate), E. Petersen describes a fragmentary relief, now in Chatsworth, belonging to the Duke of Devonshire. By a comparison with the similar Trajan relief of the Roman Forum, he shows that it is a later piece of work, and represents the remission of taxes granted by Hadrian.

Reliefs from the Basilica of Neptune at Rome.—In *Jb. Arch.* I. XV, 1900, pp. 1–42 (27 cuts), H. Lucas brings together and discusses the so-called Province reliefs and the trophy reliefs from the Basilica of Neptune. Sixteen of the former and six of the latter, found in the Piazza di Pietra at various epochs in the seventeenth and nineteenth centuries, are extant in Rome and in the Naples Museum. Eight others have disappeared. Systematic search on the same ground might produce more. They once adorned the basement of the building, the figure panels, in high relief, standing under the columns, and the low-relief trophy panels fitting between them. All belong to the northern half, as the southern half was destroyed in comparatively ancient times. Comparison with similar figures indicates that these figures, originally thirty-eight in number, are rather types of the nations which made up the Roman empire than subject provinces. Those which can be identified with more or less probability from costume and coiffure are: Germania, Gallia, and Judaea (these three represented as captives), Bithynia(?), Armenia, Dacia, Moesia, Numidia, Aegyptus, Hispania. The style is of the middle of the second century after Christ.

Romulus and Remus.—In *Röm. Mitth.* 1899, pp. 213–221 (fig.), H. Lucas discusses a fragmentary relief of the early empire, now in the Tabularium at Rome. It represents a practical version of the Romulus and Remus myth, and recalls the wall-painting of the Esquiline columbarium. It should be compared also, for its subject, with a relief in the Naples Museum (Heydemann in *Arch. Zeit.* 1872, pp. 118 f.), which, however, is much later.

VASES AND PAINTING

A Vase of Peculiar Technique. — A large oinochoe from the necropolis of Canosa recently acquired by the Naples Museum shows a peculiar technique. The usual coat of varnish was not applied. The vase has only a covering of mineral colors, some of which were applied after baking. The preservation of the design is therefore remarkable, and this is the only good example of this technique in the museum. (G. PATRONI, *Not. Scavi*, August, 1899, pp. 300-302; 2 figs.)

Etruscan Vases. — Some vases from tombs near Chiusi acquired by the Museo Preistorico in Rome in 1882 are described by G. Karo in *B. Paletn. It.* 1900, pp. 33-47 (1 pl.; 2 figs.). They belong to the end of the seventh or beginning of the sixth century B.C. One, not before published, is especially interesting. In form it is like the *oinochoe* of the Italian geometric style; in technique and decoration, it is related to the Etruscan red ware. The decoration — a band of fantastic animals — shows the period of Etruscan art that was influenced by orientalized Greek art.

An Arretine Mould in Boston. — In *Philologus*, LVIII, 1899, pp. 481-497 (pl.), P. Hartwig discusses an Arretine mould in the Museum of Fine Arts in Boston (*Report to the Trustees for 1898*, p. 89, No. 63) with a representation of scenes from the myth of Phaethon. The representation is compared with the story as told by the poets and commented upon in detail. The mould is signed by M. Perennius and Bargates, and was probably made in the time of Augustus. The cases of correspondence between so-called Hellenistic reliefs and the reliefs on Arretine bowls are becoming more and more numerous.

Mosaic representing the Embarkation of an Elephant. — In *C. R. Acad. Insc.* 1899, pp. 668-672 (pl.), R. Cagnat publishes and discusses the mosaic found on the property of the Empress of Brazil at Veii in 1889 (*Not. Scavi*, 1889, p. 158). A ship is represented moored to the shore or bank. A sloping platform or plank leads to the ship, and upon this platform is an elephant. Ropes are fastened about three of his feet, and four men in the ship are pulling him forward by two ropes, while four men on shore are holding two ropes to control his movements. The men on land have short coats and long trousers, those in the ship have long cloaks. A long-robed person, probably the master of the vessel, is sitting in the stern. The mast and sail are somewhat clumsily represented. The ship's side is ornamented with a sort of braid pattern. The mosaic belongs to the second century after Christ, at which time elephants were kept in the neighborhood of Rome for use in the amphitheatre. Other small fragments of the floor to which this mosaic belonged seem to show that various animals were represented and also some men in costumes indicating connection with the circus and amphitheatre.

The Earliest Roman Inscription. — In *Berl. Phil. W.* June 2, 9, and 16 is an address delivered in the German Gesellschaft für Altertumskunde at Prague, February 13, 1900, by O. Keller. Before discussing the archaic inscription found in the forum, Keller devotes (June 2) some space to the Duenos inscription and the song of the Arvals, discussing and correcting previous interpretations. The facsimile of the forum inscription is given (after Comparetti) and a facsimile of part of the Duenos inscription. Lin-

guistic considerations and comparisons of the forms of letters lead to the following datings: The fibula of Numasios about 600, the forum inscription between 500 and 450, the Duenos inscription about 400 B.C. The *rex* mentioned in the forum inscription is not a king, but the *rex sacrorum* is meant. D. Comparetti (*Iscrizione arcaica del Foro Romano*, Firenze-Roma, 1900, Fratelli Bencini, 24 pp. 4to. Illustrated) assigns a date not much later than 509 B.C. to the inscription. He discusses the sacred place to which the inscription belonged, the alphabet, and the contents of the inscription. An article by G. F. Gamurrini, 'La Tomba di Romolo e il Vulcanale nel Foro Romano' (*Rend. Acc. Lincei*, 1900, pp. 181-212), is in great part devoted to the explanation of the character and history of the sacred place where the inscription was found. Chr. Huelsen, *Arch. Anz.* 1900, pp. 1 ff., discusses the inscription and gives the literature of the subject to January, 1900, and publishes reduced copies of Comparetti's facsimiles. The inscription is discussed by Cesare de Cara in several articles in the *Civiltà Cattolica*, and by Dessau and v. Wilamowitz-Moellendorf, *Arch. Anz.* 1900, p. 100. In *Rend. Acc. Lincei*, 1899, pp. 507-524, L. Ceci connects the inscription with Lucia Volumina (= Juno Lucina); *ibid.* 1900, pp. 13-33, he discusses the *Leges Regiae*, and *ibid.* 1900, pp. 68-90, supports his original interpretation of the inscription.

A New Interpretation of the so-called Duenos Inscription.—In *Jh. Oesterr. Arch.* I. III, 1900, pp. 8-11 (2 cuts), L. v. Schroeder criticises Thurneysen's interpretation (*Kuhn's Zeitschrift*, XXXV, pp. 193 ff.) and proposes the following: "God help him who sends me, O maiden, if he be not friendly to thee! But (God help) thee, if for this thou dost not yield to him when thou usest (*sc.* the vase). A good man made me, to friendly purpose, for a good man; let no evil one present me." The translation of *pacari* = "yield to" (*sich fügen*) may perhaps be disputed, but the above, it is maintained, is the general sense of the inscription.

Inscriptions in Rome.—Several inscriptions are discussed by Ch. Huelsen in *Röm. Mitth.* 1899, pp. 251-263. One relating to the Theatre of Pompey, quoted by Flavio Biondo, appears among the *falsae et suspectae*, *C.I.L.* VI, 55*. It is, however, mentioned by other writers and is probably genuine. Biondo and Poggio Bracciolini gave the reading GENIVM · THEATRI, but the first letter of the fragment was probably C, and the inscription recorded the restoration of the *proscenium*. In the fifteenth and sixteenth centuries an inscription (*C.I.L.* VI, 1206) found near the Lateran was copied by several writers. This probably came from the nymphaeum of the Aqua Julia on the Esquiline, where it was read by Francesco Petrarca, and is the one referred to by Poggio Bracciolini, in his allusion to the monument called *Cimbrum* (Ulrichs, *Codex U. R. topogr.* p. 236). The wars of Domitian are the ones mentioned in the inscription.—The recent discovery on the Sacra Via of a fragmentary inscription—a dedication to C. Caesar—confirms a previous suggestion of the writer regarding a similar dedication to L. Caesar (*C.I.L.* VI, 900), of which also another fragment has been recently found. An inscription given as a *varia lectio* of *C.I.L.* VI, 900, [*in*] *honorem · domus · augustae · kalat*, is now shown by the discovery of the other half, *ores pontificum · et · flaminum*, to be genuine. It was on a long epistyle over the entrance to the *schola kalatorum pontificum et flaminum*, near the Regia. The recent discoveries show that the excavations of 1546, when

the *Fasti* were found, did not go below what until lately has been the Forum level.

An Etruscan Inscription.—In *Rhein. Mus.* LV, 1900, pp. 1-8, F. Bücheler publishes a long Etruscan inscription on a terra-cotta slab found at Capua. The occurrence of some known Etruscan words and names of deities makes it probable that the inscription has to do with the cult of the dead.

The City Law of Urso.—In *Hermes*, XXXV, 1900, pp. 205-215, E. Fabricius discusses the bronze tablets of Osuna (*C.I.L.* II, Suppl. 5439, Bruns, *Fontes iur. rom. ant.* ed. vi, p. 123). He explains the inconsistencies and peculiar provisions in part as changes made by Antonius after Julius Caesar's death.

Review of Epigraphical Publications.—In *R. Arch.* XXXVI, 1900, pp. 302-312, R. Cagnat and M. Besnier publish from recent publications thirty inscriptions relating to Roman antiquity.

COINS

A Roman Food-tax.—In *Jh. Oesterr. Arch.* I. III, 1900, pp. 72-75 (3 process-prints), W. Kubitschek discusses some *Quadrantes* of the time of Caligula and Claudius. The obscure abbreviation (P.N.R.) on the Claudian coins is interpreted as meaning *p(ortorium) n(undinarium) r(emissum)*. It refers possibly to the remission of a tax imposed under Caligula.

GENERAL AND MISCELLANEOUS

Neolithic and Eneolithic Utensils.—In *B. Paletn. It.* 1899, pp. 218-311 (3 pls.; 39 figs.), G. A. Colini continues his description of manufactures of the neolithic and eneolithic periods in Italy. Arms and utensils of obsidian are found widely distributed in tombs of both periods, proving the existence of extensive commerce. They are never found in tombs of the palaeolithic period. Flint arrow heads were perfected at the end of the neolithic period, and remained in use till the end of the bronze age, when they came to be objects of superstitious reverence. These are found everywhere, in graves and in the ruins of prehistoric settlements. They are usually triangular, with a projection at the larger end, and are among the most perfect products of the stone age. Flint knives, with straight or convex edges, were perfected at the same time as arrow heads, and are found in the same places. They appear to have been used as spear points only rarely. The article closes with an account of the neolithic and eneolithic material of Latium and Tuscany, describing particularly objects found in the tombs of Cantalupo Mandela, Camigliano, and Monte Bradoni.

Remains of Early Settlements.—Under the heading 'Notizie Diverse,' in *B. Paletn. It.* 1899, pp. 200-204, L. Pigorini calls attention to the necessity of studying systematically the so-called Pelasgic cities of Latium, and the great possibilities of excavation at Norba; and to the importance of a recent discovery at Taranto, which has brought to light three strata of vase fragments and bronze, the highest being earlier than the protocorinthian, the next having the characteristics of the *terremare* of the Po valley, the lowest representing the second stone age.

Italic Cumae.—An argument for the existence of an Italic Cumae prior to the foundation of the Greek colony, is presented by G. Patroni in

B. Paletn. It. 1899, pp. 183-199 (17 figs.). It is based upon a description of vases found at Cumae by Emilio Stevens, — rude vessels of local manufacture, like those used from the earliest time by the indigenous inhabitants of Italy.

Archaic Monuments of the Forum. — In *C. R. Acad. Insc.* 1899, pp. 753-768 (3 pls.), M. Dieulafoy discusses the recent discoveries in the Forum. He describes the natural course of the roads about the wet land where the Forum afterwards was, and shows that they were the predecessors of the streets of classical times. Their direction determined the orientation of the buildings of the Forum. The following chronological order is established for the archaic remains found near the Arch of Severus: (1) the pyramid with the archaic inscription, (2) the ditch with its curb and bases (for lions) and the base of a cone, (3) the platform and steps, (4) the black pavement, (5) the foundation mentioned by Boni, *Not. Scavi*, 1899, p. 151. This foundation is identified with the ancient rostra. The following sketch of events is proposed: Some years before the expulsion of the kings a prominent person received a tomb adorned with two lions and placed beside the earlier monuments (the inscription, etc.). This was injured in the disorders of the times. When the government was settled, this tomb and the other monuments were covered with the black pavement. Then the orator's platform was built. The orientation of these monuments in accordance with the ancient roads makes this explanation probable.

Modern Gems. — In *Röm. Mith.* 1899, pp. 244-250, E. Petersen discusses four engraved gems, showing the triumphal procession of the Arch of Titus in Rome. Of these, one is in Vienna, one in the South Kensington Museum, and two are now in Philadelphia. All are shown to be modern. Three at least are made from the sketch of S. Bartoli, and the other has modern interpolations.

Italian Votive Offerings. — L. Stieda has been studying Italian votive offerings from an anatomical point of view, and gives in *Röm. Mith.* 1899, pp. 230-243 (fig.), a brief statement of what he has observed. In his opinion, the offering represented the part in its diseased condition; a hand from Veii shows a swelling on the palm. Attention is called particularly to the representation of internal organs.

On the Chronology of the Emperors Philip II, Decius and Volusianus. — In *Jh. Oesterr. Arch. I.* III, 1900, Beiblatt, pp. 96-98, N. Vulié shows that Philip II became Augustus between October, 246, and August, 247; that Decius died before or during the summer of 251; and that Volusianus ceased to be Emperor before June-September, 251. Schiller, *Gesch. d. röm. Kaiserzeit*, I, 2 Theil, 808 f., is wrong in saying that Volusianus did not become Augustus until after Hostilianus's death.

FRANCE

Ancient Bibracte. — In his book *Fouilles du mont Beuvray (ancienne Bibracte) de 1867 à 1895* (Autun, 1899, 2 vols. 8vo, with album of lxi pls.) J. G. Bulliot has proved that the Aeduan town of Bibracte was at Beuvray, not, as has been maintained, at Autun. (*C. R. Acad. Insc.* 1899, pp. 787 f.)

Egyptian Figures in Gaul. — In *R. Arch.* XXXVI, 1900, pp. 75-86 (11 figs.), E. Guimet publishes and describes several ushabtis of terracotta and "faïence" found at Vaison, Rouaix, Lampourdier, Uchaut, Cameret,

Orange, Caderousse, Avignon, Arles, and Nîmes. Some other objects from the same places are also published and described. The hieroglyphic inscriptions on the ushabtis are in part legible, but have no connected meaning. The work is of Roman date. The figures are Egyptian in character, but differ in details from similar objects of genuine Egyptian origin.

Celtic Mythology on Gallo-Roman Monuments in the Cluny Museum.—In *R. Arch.* XXXVI, 1900, pp. 66-74, H. D'Arbois de Jubainville finds that scenes from the life of a mythical Celtic personage originally named Esus, also called, from his false beard, Smertain or Smertullos, are represented on three reliefs in the Cluny Museum. In one case a bull and three storks are represented, with the inscription TARVOS TRIGARANVS. In another case the hero is cutting down a tree. In the third, he is killing a serpent. The Irish poem, *Táin bó Cúailnge*, 'The Theft of the Cows of Cooley,' tells the story of the mythical Esus under the name of Cuchulain. The divine bull is an important figure in Celtic mythology. Evidently the myths of the continental Celts were identical with those of the Irish. The names of persons and of places where the Celts dwelt are often connected with the bull. Several instances of this fact are given. The position of the druids as priests and teachers is discussed. A relief at Treves represents two of the scenes mentioned.

Pagan Gallic Art at the Paris Exposition.—In the *Exposition rétrospective* works of French art of all periods are gathered. Some remarks on the art of pagan Gaul as there represented are made by S. Reinach, *Gaz. B.-A.* XXIII, 1900, pp. 454-464 (6 photographic figs.). A very grave and un-Roman figure is a colossal draped Mercury from Lezoux (Puy-de-Dôme), the Hermes and Dionysus from Roye (now at Péronne) seems to be a copy of a Greek work of the fifth century B.C., while the nude Venus from Grenoble goes back to a Greek original of somewhat later date. A fine ivory head at Vienne is an imitation of Greek work of the fifth century, and is one of the most important extant ancient ivories. Numerous enamelled fibulae are of great interest. The Frankish or Merovingian times are represented by numerous interesting works, and the style, of uncertain origin, which combines filagree and cloisonné work, can be followed down to the twelfth century. This style was probably invented, or at least cultivated, by the Goths, and was spread over nearly all Europe and even, apparently, to China. The earliest and most luxurious specimens are found in Roumania and Hungary, regions occupied by the Goths in the fourth century after Christ.

AFRICA

Submarine Investigations near Carthage.—In *C. R. Acad. Insc.* 1900, pp. 53-78 (4 pls.), the ensign of the vessel *Hantz* gives a detailed account of soundings in the neighborhood of Carthage, and draws from them conclusions different from those of previous writers about the Carthaginian harbors.

The Harbors of Carthage.—M. de Roquefeuil's soundings from Cape Carthage (Bu Said) to Falbe's quadrilateral show only the natural sandy sea bottom. Along the shore are remains of numerous small moles and breakwaters, an enclosed quadrilateral resembling that of Falbe, and a line of quays which runs as far south as the Cothon. Scipio's dike and the entrance to the harbor are yet to be found. (R. OEHLER, *Arch. Anz.* 1899, pp. 193-197; chart.)

Engraved Work from Carthage.—In *C. R. Acad. Insc.* 1900, pp. 16–22 (4 figs.), L. Heuzey publishes and discusses some ivory combs and metal tools with engravings in Egyptian style found at Carthage. There are evidences of Assyrian influence, but no trace of Greek art. Some peculiarities are essentially Phoenician.

The Topography of Hadrumetum.—In *R. Arch.* XXXVI, 1900, pp. 195–211, Colonel Monlezun describes the site of Hadrumetum (Sousse), and shows how the settlement developed from a simple trading fort to a large town, then fell off to the dimensions of a village, and recently became once more important. Nine plans show the different stages in the development of the place. Especial attention is devoted to the harbors.

Plaustellum Poenicum.—In *C. R. Acad. Insc.* 1900, pp. 22–26 (2 figs.), E. T. Hamy discusses the *plaustellum* or *plostellum Poenicum*, and identifies it with a sort of harrow with toothed metal disks to divide the soil, which is now used in Tunisia under the names *sabir*, *karrita*, or *kerita*.

Roman Beehives.—Varro, *de Agr.* III, 16, describes five kinds of beehives. Three of these are still used by the Berbers. They are described and discussed (cut) by E. T. Hamy in *C. R. Acad. Insc.* 1900, pp. 41–43.

CHRISTIAN ART

GENERAL AND MISCELLANEOUS

The Orante not of Christian Origin.—In the *S. Bibl. Arch.* (Proceedings), 1899, pp. 251, 252, W. E. Crum contributes 'Notes on the Egyptian Orantes,' in which he publishes an Egyptian stele exhibiting the deceased standing with arms raised between two jackals. May not this method of figuring the departed soul have passed from Alexandria to Italy?

Relics from Constantinople.—In the *R. Art Chrét.* 1900, pp. 102–115, 218–230, F. de Mély continues his study entitled 'Reliques de Constantinople.' The present articles are concerned with (1) the relics of the Crown of Thorns preserved at Soissons, Namur, Longpré, Courtrai, Chartres, Clairvaux, Beauvais, Lille, Liessies, Huy, Halberstadt, Belluno, Pavia, and Vicenza, and (2) those preserved at Clermont, Vaulsor, Dijon, St. Pierre d'Albigny, Avignon, Solesmes, Tournemire, Troyes, Montfleury, Le Puy-les-Baronies, Grand Saint Bernard, Olmütz, Wevelghem, Città di Castello, Florence, Venice, Fano, Lucca, and San Placidio de Colonero near Messina. Tradition assigns to the first class an origin from Constantinople, while the second class of thorns is supposed to have been transported directly from Jerusalem. There are 672 thorns known to be preserved as relics of the Crown of Thorns.

Iconography of the Soul.—The soul was figured in the middle ages as a diminutive human being, ordinarily nude in French, and clothed in Italian, representations. The *Annales de St. Louis des Français*, 1899, p. 285, publishes an article entitled 'Une secte de Spirites à Pamiers en 1320,' which is based on a Vatican manuscript and gives interesting details concerning the appearance of souls. Extracts are published by Mgr. X. Barbier de Montault in the *R. Art Chrét.* 1900, pp. 270–272.

Notes on Umbria.—In the *R. Art Chrét.* 1900, pp. 93–101, 206–217, M. Gerspach gives the results of his studies of the processional banners still preserved at Borgo San Sepolero, Città di Castello, Gubbio, Spello, Assisi,

Foligno, Montefalco, and Perugia, and painted by such artists as Ottaviano Nelli, Niccolo Alunno, Ibi Sinibaldo, Bonfigli Benedetto, Perugino, Signorelli, and Raphael. The common conception of Umbrian painting which recognizes a single type only, that of Perugino and his school, fails to do justice to other painters from the same district but of widely different character. Gerspach proposes a triple classification, the first group comprising Nelli and Mesastris; the second, Alunno and Bonfigli; and the third, Perugino and his scholars.

Archaeological Notes in Suabia.—In the *Gaz. B.-A.* 1900, pp. 55–67, 190–202, Eugène Müntz completes his series of articles on German art in Stuttgart, Ulm, Blaubeuren, and Sigmaringen. The present articles are concerned largely with the paintings of Zeitblom and of Martin Schaffner. At Sigmaringen Müntz discovered the signature of Johann Daher of Augsburg with the date 1520 on a lithographic stone analogous in style to the much-admired stone from the collection of M. Charles Stein, for which no certain authorship is known (see MOLINIER, *Hist. Gén. d. Arts Appliq. à l'Indust.* II, p. 208).

Christian Delphi.—In *B.C.H.* XXIII, 1899, pp. 206–279 (27 cuts), is an article on 'Christian Delphi' by J. Laurent. Architectural fragments are described in detail. They are capitals, impostes, and slabs with reliefs. Most of these belong to the fifth century after Christ. In the sixth century the rich decoration known in Syria and the Eastern Empire appears. The temple of Apollo was probably transformed into a church between 425 and 450 A.D. There is no evidence of Christianity at Delphi before the fifth century. The place seems to have suffered from the invasion of the Slavs in the sixth century, and to have been abandoned in the seventh.

The Mosaics of the Dome of S. Sophia in Thessalonica.—The mosaics of the dome of S. Sophia at Thessalonica were imperfectly published by Texier and Pullan, and by them and others assigned to the sixth century. The paint with which the Turks had covered the figures has now further disappeared, and in 1898 the mosaics were photographed and published by E. Redin in an article entitled 'Die Kuppelmosaik der hl. Sophia in Thessalonich.' The style and composition of the mosaics are now seen to be of the eleventh or twelfth and not of the sixth century. (*Byz. Z.* 1900, pp. 299, 300.)

Early Christian Sarcophagi at Zara, in Dalmatia.—In *Reliq.* 1900, pp. 194–198 (3 figs.), M. E. Bagnall-Oakeley publishes three slabs from sarcophagi in the church of S. Donato, now a museum, at Zara. The church resembles San Vitale, at Ravenna, but is far inferior to it. It was built about 810 A.D. The sarcophagi are ascribed in the museum to the ninth and tenth centuries, which may not be correct. One slab has seven panels: 1, the Salutation; 2–3, the Nativity; 4, the shepherds adoring; 5–7, the infant Jesus blessing the magi. The second slab has eight panels: 1–4, the Judgment of Solomon; 5–7, the Flight into Egypt; 8, unexplained. The third slab has designs of crosses, leaves, and patterns.

Two Busts at Cracow.—In the archaeological museum of the University of Cracow are two busts used as reliquaries, one representing St. Stanislas, and the other St. Ursula. They formerly contained relics of St. Stanislas and of the 11,000 virgins. In an article in the *Comptes rendus* of the *Comm. Hist. de l'Art* of the Academy of Sciences of Cracow, I, VI, pp. 329–335,

M. Leonard Lepzy holds that they are works of the fourteenth century, and that in one of them the sculptor tried to reproduce the features of Jean de Radlica, Bishop of Cracow (1382-1392).

BYZANTINE AND MEDIAEVAL ART

ITALY

The Marbles of St. Mark's.—It is stated that the marbles of St. Mark's at Venice were brought from various places including Athens and the Morea. The Greek origin is proved by a graffito found on the back of one of the plaques, reading Ἰωάννου Κομνηνοῦ. (MILLET, at a meeting of the French School at Athens, Dec. 14, 1898; *B.C.H.* XXII, 1898, p. 598.)

Silver Box of the Fourth Century.—The silver box deposited in 383 in the tomb of St. Nazarius at Milan by St. Ambrose is a superb specimen of fourth-century work, between 383 and 408 A.D. The miniatures of the Ambrosian Iliad in Milan stand between this silver box and the diptych of Honorius, 408 A.D. (DE MÉLY, *C. R. Acad. Insc.* 1900, p. 52 f.; cf. *Chron. d. Arts*, 1900, p. 89.)

The Treasures of St. Ambrogio at Milan.—In the *R. Art Chrét.* 1900, pp. 116-132, 231-247, X. Barbier de Montault continues his article 'Le trésor de l'église St. Ambroise à Milan.' After a critical review of the literature concerning the golden altar, which he considers an Italian work of the ninth century, he describes the Coronation Missal of 1395, the choir books, casket of the Holy Innocents, and Pax of the fifteenth century, and the processional cross, candelabra, and banner of the sixteenth century.

Embroidery executed for Pope John VII (705-708).—The *Liber Pontificalis* mentions many embroideries presented by the Popes to Roman churches from the fourth to the ninth century, though the oldest surviving example, the *dalmatica* of Leo III, now preserved in the Vatican, dates only from the twelfth century. Eugène Müntz in the *R. Art Chrét.* 1900, pp. 18-21, has an article entitled 'Une Broderie inédite exécutée pour le pape Jean VII (705-708).' The embroidery here described adorned the baldachino of the Cappella del Presepio in St. Peter's, Rome. It was ordered by Pope John VII, the subjects portrayed representing the same scenes depicted in the mosaics in the same chapel. The embroidery has disappeared, but a drawing by Grimaldi, made early in the seventeenth century and now published by Müntz, reproduces the composition of the Annunciation, the Nativity, the Transfiguration, the Crucifixion, and Christ entombed.

FRANCE

The Sculptures of St. Trophime at Arles.—The sculptures of St. Trophime are usually assigned to the first half of the twelfth century, at the latest 1150. Recently M. Marignan has held that the oldest sculptures in the cloisters at Arles are to be dated from the first third of the thirteenth century. At the meeting of the Académie des Inscriptions held February 23, 1900, M. de Lastegrie showed from epigraphic evidence that the northern gallery of the cloister was executed between 1180 and 1188. At the meeting of the Académie held March 9 M. de Lastegrie showed that the famous sculptured portal of St. Trophime, concerning the date of which various opinions have been held, is analogous in detail to other portals of the same

district dated with certainty between 1180 and 1200. It cannot, therefore, be maintained that the school of sculptures at Arles influenced the sculptors of the portals at Chartres, since the latter portals were executed half a century earlier. (*Chron. d. Arts*, 1900, pp. 79-80, 96.)

Romanesque Churches of the Cantal.—Several years ago the Comité des travaux historiques et scientifiques recommended the study by provinces of churches built in the eleventh and twelfth centuries. Such a study has been undertaken by M. de Rochemonteix for the Romanesque churches of the Cantal. His work, not yet published, consists of a general introduction defining the characteristics of the architecture of this locality and the influences received from the Auvergne and the South of France; also of forty-six monographs on individual churches. (*B. Arch. C. T.* April, 1900, p. 3-4.)

The Façade of Chartres Cathedral in the Twelfth Century.—In the *R. Art Chrét.* 1900, pp. 32-39, 137-145, Maurice Lanore writes an article entitled 'Reconstruction de la façade de la cathédrale de Chartres au XII siècle. Étude chronologique.' His conclusions are (1) that from 1134 to 1144 the church was shorter and in front of its façade there stood an isolated tower, now known as the Clocher Neuf; (2) that from 1145 to 1194 the church was somewhat longer, the nave having been advanced to the back of the tower, and that a second tower, now known as the Clocher Vieux, was erected; (3) that after the fire of 1194 the church was still further lengthened and the façade extended to the front of the towers; (4) that the sculptured portals of the western façade date from 1145-1155, being transitional between the similar portals of St. Denis (1140) and Le Mans (1155) and are therefore half a century earlier than is supposed by A. Marignan in *Le Moyen Age*, September-October, 1898, pp. 341-353.

The Cathedral of Meaux.—The Cathedral of Meaux exhibits many interesting changes in style, but since 1871, when M. Allon wrote his *Notice historique et description de la cathédrale de Meaux*, it has received little attention. In 1898 M. E. Jouy published in the *R. Art Chrét.* an article entitled 'Le Triforium de la Cathédrale de Meaux.' In the same periodical, 1900, pp. 1-17, Émile Lamkin writes a general description of this Cathedral entitled 'La Cathédrale de Meaux.' His forte is decipherment of Gothic flora. In this article he tabulates the sculptured flora of the Cathedral and from a general knowledge of its historic sequence determines the periods in which various parts of the Cathedral were built.

The Churches of St. Dié (Vosges).—What is known as the Petite Église at St. Dié has been the subject of interesting studies by MM. Sane and Schuler in Vol. VIII of the *Bulletin de la Société philomatique vosgienne* and of a monograph by Canon L'Hôte entitled *Notre Dame de Saint Dié*, 2d edition, 1894, St. Dié. Besides the Petite Église the Cathedral and its contents are well worthy of careful study, as may be judged from the notice 'Une Visite aux Églises de St. Dié (Vosges)' in the *R. Art Chrét.* 1900, pp. 39-47.

The Architect of Sainte Wandru de Mons.—According to J. Hubert the collegiate church of Sainte Wandru de Mons was planned by Huwellin (Hulin), the master mason of the Hainaut. (See *R. Art Chrét.* 1898, p. 396.) At the congress held at Arlon, M. Boghaert-Vaché revived the attribution of the late L. Dethuin, who assigned this church to Jean Spiskin. To the arguments of M. Boghaert-Vaché a vigorous reply is made by M. Hubert in *Verveine* December 17, 1899.

Fortifications of Frocourt (Somme) and d'Ambleny (Aigne).—M. Vauvillé has ascertained that the fortifications at Frocourt are not earlier than the fourteenth or fifteenth century, judging from the position in which he found glazed tiles of this period. The numerous fragments of Gothic pottery found at the base of the fosse at d'Ambleny indicate that these fortifications existed at the time of the campaigns of Caesar, while pottery of the thirteenth to the fifteenth century shows that the place was inhabited till the end of the middle ages. (*B. Arch. C. T.* March, 1900, p. 3.)

Mediaeval Houses.—In the *Arch. Rec.* April, 1900, pp. 333-362, M. Jean Schopfer writes on 'Wooden Houses in France during the Middle Ages.' The article is well illustrated with examples of the timber houses of the fifteenth and sixteenth centuries, which show considerable variety and ingenuity in design, and are extremely picturesque by reason of their overhanging upper stories, their broken and irregular roofs, and their figured sculptural ornamentation.

BELGIUM

The Béguinage Ste. Élizabeth at Mont St. Amand.—Among the corporations in Belgium none are more remarkable than the Béguinages, where Sisters of Charity reside as in a community. Of these the Béguinage Ste. Élizabeth at Ghent was a fine example of Flemish mediaeval architecture. Oppressed by taxation, the community moved twenty-five years ago to Mont St. Amand, where was reproduced, through the generosity of the Duc d'Arenberg and the architectural skill of Arthur Verhaegen, the entire plan of their conventual buildings in Ghent. These establishments in general are described by D. F. Oetker, *Belgische Studien*, Stuttgart, 1876, while this one in particular is the subject of a monograph by Jules Lammens, entitled, *Le Béguinage de Sainte-Élizabeth à Mont Saint Amand* and of a notice by Jules Helbig in the *R. Art Chrét.* 1900, pp. 145-151.

The Abbey Church of Villers.—In the *Bull. Comm. roy. d'Art et d'Arch.*, Bruxelles, 1899, pp. 37-86, Edgar de Puelle de la Nieppe contributes an article entitled 'Église de l'abbaye de Villers.' He assigns this Cistercian church to the end of the twelfth century instead of to 1272, the date traditionally given. As a result of the excavations he also attempts to determine the situation of the chapels and other places which contained tombs.

GERMANY

The Round Tower at Andernach.—At Andernach, the only well-preserved portion of the ancient fortification is the round tower. This is composed of an octagonal tower above a cylindrical tower. Each is subdivided into two rooms with vaulted ceilings. The Archives show that the tower was begun by Meister Philipps in 1448 and finished in 1452. Careful drawings of this tower are published by Sackur, in an article entitled 'Der "Runde Thurm" in Andernach a. Rh.' (*Zeitschr. f. Bauwesen*, 1899, pp. 579-582.)

The Reliquary of Reichenau.—In the treasury of the abbey at Reichenau is a reliquary in the form of a cross, which is usually identified with one mentioned in a manuscript of the tenth or eleventh century (formerly at Reichenau, now in the library at Karlsruhe) as having been given by a certain Hassan to Charlemagne. The details of the story told in the manuscript are manifestly absurd. The Reichenau cross is a work of Byzantine art, but probably not earlier than the eleventh century. This appears from

its style as well as from the inscription, which is in characters of the time between the twelfth and the fifteenth century. (JEAN J. MARQUET DE VASSELLOT, *R. Arch.* XXXVI, 1900, pp. 176-183; pl. iv.)

French Influence in Early Gothic Sculpture in Saxony.—German archaeologists seem now almost eager to admit French influence on German sculptors in the Gothic period. In the *Rep. f. K.* 1899, p. 109, K. Franck-Oberaspach writes an article entitled 'Zum Eindringen der französischen Gotik in die deutsche Skulptur,' and now in the *Jb. Preuss. Kunsts.* 1899, pp. 285-300, Adolph Goldschmidt contributes a study along the same lines entitled 'Französische Einflüsse in der frühgotischen Skulptur Sachsens.' This article deals with a series of sculptures in the Cathedral of Magdeburg, representing Apostles, Wise and Foolish Virgins, Virtues and Vices. They are shown to have been designed for the north portal of the cathedral by some sculptor acquainted with the chief entrance of Notre Dame at Paris and the south portal of the cathedral at Chartres. Executed between 1210 and 1220, these sculptures should rank as the earliest examples of German Gothic sculpture.

ENGLAND

The Clermont Runic Casket.—In *Skifter Utgifna af K. Humanistiska Vetenskaps-Samfundet i Upsala*, VI, 1900, 7, pp. 1-54; 5 pls., Elis Wadstein publishes and discusses the Clermont (or Franks) Runic Casket in the British Museum. This is English in its origin, though it was at one time at Clermont-Ferrand. The inscriptions and carvings are explained. Scenes from the life of the archer Egil, scenes from the New Testament and Jewish history, Romulus and Remus, and scenes from the Siegfried story are represented.

The Church of St. Ewan at Barèvan, Nairnshire.—In *Reliq.* 1900, pp. 47-52 (6 figs.), Hugh M. Young describes the ruins of a Gothic church of the thirteenth and fourteenth centuries at Cawdor, in Scotland, the early name of which was Barèvan.

Ffenny Bentley Church.—In *Reliq.* 1900, pp. 80-100 (11 figs.), Richard K. Bolton describes, with historical discussion, the church at Ffenny Bentley, Derbyshire. The building is of various dates, from Norman times to the nineteenth century, and contains some interesting monuments. The carved oak screen of late fifteenth-century work is especially fine.

Sculptured Norman Tympanum at Siston Church.—In *Reliq.* 1900, pp. 53 f. (fig.), Alfred C. Fryer publishes a Norman tympanum at Siston, Gloucestershire. A conventional "tree of life" is surrounded by Norman patterns.

Monmouthshire Buildings.—In *Reliq.* 1900, pp. 145-171 (31 figs.), J. Russell Larkby describes a number of buildings in Monmouthshire. The architecture is of all classes from Norman to perpendicular Gothic. Norman work at Newport Church, Norman and perpendicular work at Christ Church, some three miles away, and Norman and Early English work at Llanthony Abbey are especially prominent.

RENAISSANCE ART

ITALY

The Beginnings of Renaissance Architecture.—In the *Gaz. B.-A.* 1900, pp. 89-100, 425-434, Marcel Reymond writes on 'Les Débuts de L'Architecture de la Renaissance (1418-1440).' He sketches the first

steps taken by Brunelleschi and his contemporaries in introducing the new style. He attributes great importance to the old sacristy of S. Lorenzo in the history of early Renaissance architecture, and makes use of the recent discoveries which have led to a new reconstruction, by M. Castellucci, of the celebrated *cantoria* by Luca della Robbia.

The Cathedral at Treviso.—In 1897 Gerolamo Biscaro published in the *Arch. Stor. d. Art.* an article entitled, 'Pietro Lombardo e la Cattedrale di Treviso.' Since that time new documents have come to light concerning Bishop Zanetto and Pietro Lombardo and their relations to the cathedral at Treviso. This wealthy bishop made liberal provision for the cathedral and especially for its principal chapel. The documents concerning the bishop are of interest, but more important for historians of art are the new documents which specify in detail the architectural and sculptural work entrusted to Pietro Lombardo and his sons. The documents are published and discussed by Gerolamo Biscaro in the *N. Arch. Ven.* 1899, pp. 135-194.

The Triumphal Arch and Door at Castel Nuovo, Naples.—In 1876 Minieri Ricci published a short monograph entitled, *Gli Artisti ed Artefici che lavorarono in Castel Nuovo a tempo Alfonso I e Ferrante I di Aragona*. The same subject was treated with great thoroughness by C. v. Fabriczy in an article entitled, 'Der Triumphbogen Alfonsos I am Castel Nuovo zu Neapel,' *Jb. Preuss. Kunsts.* 1899, pp. 3-30, 125-158. Em. Bertaux, who has made special studies with reference to a general history of art in southern Italy, contributes for the *Arch. Stor. Prov. Nap.* 1900, pp. 27-63, an article entitled, 'L' Arco e la porta trionfale d' Alfonso e Ferdinando d' Aragona.' Of the various sculptors known to have been engaged on the triumphal arch, he finds it impossible to assign with certainty the part contributed by Domenico da Montemignano, Francesco da Laurana, Andrea dell' Aquila, Gaia da Pisa, and Paolo Romano. On the other hand, the work of Pietro da Milano consisted of the architectural design and the principal relief sculptures of the façade, as also of the relief sculptures of the interior passageway and of the rear of the arch. Within the castle is a large room, richly decorated in Spanish style and containing two marble doorways, one of which is elaborately sculptured. This doorway, though mentioned by Vasari as the work of Giuliano da Maiano, has escaped the attention of recent writers on Italian art. Vasari seems to have been mistaken in his attribution, for the design and workmanship are evidently closely related to the portions of the triumphal arch which were executed by Pietro da Milano.

Lombard Relief of a Pietà.—In the large hall of the Monte di Pietà at Milan is a marble relief of a Pietà which has attracted little attention. On September 3, 1899, Diego Sant' Ambrogio wrote an article for the *Lega Lombarda*, in which he published a document showing that on the 13th of August, 1523, a marble door was ordered for the Monte di pietà, to be executed by Stefano de Foresti, Giangiacomo da Briosco, Gianpietro da Osio, Giangiacomo da Sangallo, Francesco de Plantanidis, Nicolao da Merate, and Filippo de Mantegaziis. To which of these the relief should be attributed it is now impossible to say. (C. v. F. *Rep. f. K.* 1899, pp. 506-507.)

Bernardo Rossellino.—C. von Fabriczy publishes in the *Jb. Preuss. Kunsts.* 1900, pp. 33-54, the first part of an article on Bernardo Rossellino. The starting-point of the discussion is the lunette over the door of the Ora-

tory of the Misericordia at Arezzo, a work which recent investigation has shown to have been executed by Bernardo between April 24, 1433, and July 23, 1434. By reason of similarity of style, a terra-cotta altar-piece representing the Annunciation, now in the cathedral at Arezzo, is attributed to Bernardo. This is dated 1433, and doubtless preceded the lunette at the Misericordia. Among the other works attributed to the same sculptor are a ciborium for SS. Flora and Lucilla (1435); a tabernacle for the Badia at Florence (1436); a tabernacle from S. Chiara, Florence, now in the South Kensington Museum; a door for the Sala del Consistore in the Municipio at Siena (1446); a tomb for Orlando de' Medici (1457); the tomb of B. Lorenzo Pisano da Ripafratta in S. Domenico at Pistoia (after 1457); the tomb of Neri di Gino Capponi in S. Spirito (after 1457); and that of Gemignano Inghirami in the cloister of S. Francesco at Prato (after 1460).

Documents from Piacenza concerning Raphael's Sistine Madonna.

— The Madonna painted by Raphael for the church of San Sisto in Piacenza was seen in place by Vasari. It was seen and described by Don Felice Passero, in a rare pamphlet entitled, *Sito, lodi e prerogative del Riverendo Monasterio di San Sisto di Piacenza*, published in Piacenza in 1593. Some documents concerning the sale of the painting in 1753 were published by Gualandi, *Memorie*, I, pp. 29–33, and by Hübner in Zahn's *Jahrbücher*, III, pp. 273–279, but these documents did not emanate from Piacenza. In the Communal Library and in the Episcopal Library at Piacenza are preserved letters and other documents, some of which have been imperfectly published in inaccessible volumes. These Piacentine documents are published by Karl Woermann, under the title, 'Piacentiner Nachrichten und Urkunden zur Geschichte von Raffael's Madonna Sistina,' in the *Rep. f. K.* 1900, pp. 12–23.

Concerning Raphael's Galatea.— Richard Förster, in an article entitled 'Noch Einmal Raffael's Galatea,' published in the *Rep. f. K.* 1900, pp. 1–11, points out that the source of inspiration to Raphael was not Apulejus, nor Pontanus, nor Philostratus, but the Giostra of Poliziano, lib. I, str. 118. As early as 1557, Ludovico Dolce, in his *Dialogo della pittura*, had not only mentioned this figure of Raphael's as Galatea, but also brought it into relation to the poem of Poliziano in the words, "Galathea, che contende con la bella poesia del Policiano."

Raphael's Paintings in England.— In the *Gaz. B.-A.* 1900, pp. 177–190, 407–419, Herbert Cook continues to write of Italian paintings in private collections in England. The present articles treat of Raphael and his school, and illustrate some well-known and some little-known paintings by the great Italian master.

An Inedited Drawing by Raphael.— In the Ambrosian Library at Milan there is a volume of drawings known as the codex of Padre Resta. From this volume Braun, Clément & Co. have reproduced, with other drawings, three which are inaccurately attributed to Raphael, but they have overlooked a drawing in the same volume which is undoubtedly by Raphael, and of special interest as a preliminary sketch for the upper portion of the famous fresco of the 'Disputa' in the Vatican. On the opposite side of this sketch is a study for the drapery of the Virgin in the same fresco. These are published by Gustave Frizzoni in the *Gaz. B.-A.* 1900, pp. 75–82.

The Last Years of Francesco Laurana.— Within a few years new material has been gathered regarding the life of Francesco Laurana, the

favorite sculptor of René of Anjou. These contributions have been made by C. v. Fabriczy in the *Rep. f. K.* 1897, in the *Jb. Preuss. Kunsts.* for 1899, and by Maxe Wesly in a paper before the Académie des Inscriptions in 1899. A new document, proving that Laurana lived as late as October 14, 1500, is published by Eugène Müntz in the *Chron. d. Arts*, 1900, pp. 152-153.

Luca della Robbia.—The recent publications of Marcel Reymond, *Les della Robbia*, Florence, 1897, and *La Sculpture Florentine*, Florence, 1899, have called forth from Dr. Bode of Berlin (*Jb. Preuss. Kunsts.* 1900, pp. 1-33) a new article on Luca della Robbia, in which he opposes the views and methods of Marcel Reymond.

Niccolò d'Arezzo.—In the *Rep. f. K.* 1900, pp. 85-91, C. von Fabriczy publishes documentary evidence concerning the S. Luke made by Niccolò d'Arezzo for Or San Michele, a statue which stands now unrecognized in the Museo Nazionale in Florence; also for the work accomplished by Niccolò for the façade of S. Marco in Venice. The date of his death is now known to be December 11, 1456.

Contributions to the History of Venetian Painting.—Pietro Parletti and Gustav Ludwig give, in *Rep. f. K.* 1899, pp. 427-457, the results of their researches in the archives for mention of Venetian painters. These concern the paintings of Antonio and Bartolomeo and Alvise Vivarini, Giovanni and other painters from Germany, Leonardo Baldrono, Andrea da Murano, Marco Basaiti, and Pseudoboccaccino.

Tapestries illustrating the Battle of Pavia.—The museum of Naples contains a series of tapestries formerly attributed to Titian and Tintoretto, and representing the Battle of Pavia. Wauters first discovered that these tapestries were by the Flemish artist, Bernard van Orley. They were studied in 1896 by Beltrami, in a monograph entitled *La battaglia di Pavia illustrata negli arazzi del Marchese del Vasto al Museo Nazionale di Napoli*, Milan, 1896. They are again published, and their Flemish authorship reestablished, by M. Morelli, in an article entitled 'Gli arazzi illustranti la battaglia di Pavia, Conservata nel Museo Nazionale di Napoli,' in the *Atti dell' Accad. di Archeol. Lettere e Belle Arti*, XXI.

Maso Finiguerra.—In 1898 Sidney Colvin published a series of ninety-one drawings, representing scenes and personages of ancient history, sacred and profane, under the title *A Florentine Picture-Chronicle*. These drawings were attributed by Colvin to Maso Finiguerra. A résumé of Colvin's work is given by B. Berenson in the *Gaz. B.-A.* 1900, pp. 170-176.

Iconography of the Triumphs of Petrarch.—At a meeting of the Académie des Inscriptions, January 12, 1900, Eugène Müntz reviewed more than one hundred illustrations of the Triumphs of Petrarch, taken from paintings, miniatures, tapestries, engravings, and sculptures, of the fifteenth and sixteenth centuries. The successive modifications in detail and the new episodes added to the poem by succeeding generations of interpreters were pointed out. (*R. Art Chrét.* 1900, p. 162; *Chron. d. Arts*, 1900, p. 23.)

Vases and Flower Baskets represented in Manuscripts of the Fifteenth Century.—In 1859 Mgr. Barbier de Montault published in the *Rep. archéol. de l'Anjou*, p. 93, a description of a Book of Hours in the Diocesan Museum at Angers. Especially interesting in this manuscript are the representations of vases and flower baskets, some of straw, others of rough terra-cotta, of faience and of Venetian glass. These are republished

by L. de Farey, in chromolithography, in the *R. Art Chrét.* 1900, p. 248 and pl. ii.

The Italian Garden.—In a series of four articles, published in the *American Architect*, February 10, 17, March 17, 24, James Sturgis Pray writes of the Italian garden, with its groves and terraces, its regular paths, artificially trimmed hedges, orangeries, pergolas, fountains, and statuary. Although the Italian garden may represent the survival of old Roman methods, its history in the mediaeval period, and even in the early renaissance is very obscure. The Italian garden, as we know it, dates from the sixteenth century, from Bramante's great garden court of the Vatican and Raphael's garden for the Villa Madonna. The garden at the Villa d'Este, Tivoli, when in its prime, was doubtless the finest in all Italy, though that of the Villa Lante, at Bagnaia, near Viterbo, is, all things considered, the most completely preserved.

FRANCE

Portrait of Margaret of Valois.—In *R. Arch.* XXXVI, 1900, pp. 1-3 (pl. i; 2 figs.), F. Ravaisson publishes a portrait of a young woman of the early sixteenth century, now in the Louvre. It has been ascribed to the school of Leonardo da Vinci, and formerly went under the name of *La Belle Féronnière*. Comparison with a medal of Francis I shows a marked resemblance between the person represented in the portrait and that king. The person represented is probably Margaret of Valois, the niece of Francis I. The portrait, in spite of some faults, shows peculiarities which justify us in ascribing it to Leonardo himself.

The "Sposalizio" in the Museum at Caen.—In *Gaz. B.-A.* April, 1896, B. Berenson endeavored to show that the "sposalizio," at Caen, attributed to Perugino, is really by his pupil Lo Spagna, and is an imitation of Raphael's picture in the Brera Museum at Milan, not the source of Raphael's inspiration. This view, and Berenson's entire method (that of Morelli and his followers), was attacked by Engerand in the *Revue de l'Art*, September 10, 1899. Incidentally he maintained that the St. Jerome in Caen is really a work of Perugino, not, as Miss Mary Logan had declared, of Lo Spagna. In *R. Arch.* XXXVI, 1900, pp. 115-125, Miss Logan attacks the method and arguments of Engerand, and maintains that the method followed by Berenson and herself is correct, and has led to correct results.

The Tapestries of Notre Dame de Beaune.—In the *R. Art Chrét.* 1900, pp. 193-205, Henri Chabeuf publishes an important series of tapestries preserved in the church of Notre Dame at Beaune. Dispersed at the time of the Revolution, these tapestries have at length been recovered. They consist of a series of compositions depicting the history of the Virgin, some of which, e.g. the Virgin being conducted to the house of St. Joseph, are rare in the history of Christian art. These tapestries are inscribed with the date, *Cest tapisserie fut faite l'an de grace mil Vc*, and with the name of the donor, *S. Hugo, Abbas Cluniacensis*. H. Chabeuf has discovered in the archives of Beaune the contract for a series of tapestries corresponding to these to be designed by Pierre Spicre for Cardinal Rolin, who was archdeacon of Beaune. As the Cardinal died in 1496, and Hugues Le Coq was canon in 1470 and archdeacon in 1500, the latter became the donor of the tapestries. These tapestries reflect great credit on the name of Pierre Spicre, otherwise unknown. He may have been a son of Guillemain Spicre or Spicker,

the designer of the fine glass window in the apse of S. Jean at Dijon, representing the first three Dukes of Burgundy. Guillemin Spicre's name appears several times in the archives of Dijon between 1450 and 1474. He was probably a member of the Flemish colony then settled at Dijon.

Claude Hoin.—In the *Gaz. B.-A.* 1900, pp. 10-24, 203-216, 293-309, Baron Roger Portalés has taken advantage of his exceptional opportunities of making known the work of this talented pupil of Greuze, who was characterized by Edmond de Goncourt as one of the four or five most remarkable aquarellists of the eighteenth century.

The Legacy of the Baroness Nathaniel de Rothschild to the Louvre.—The legacy of the Baroness Nathaniel de Rothschild to the Louvre consisted almost entirely of Italian paintings; but in a general article entitled 'Le Legs de la Baronne Nathaniel de Rothschild au Musée du Louvre,' published in the *Gaz. B.-A.* 1900, pp. 5-9, Henry de Chennevières devotes his attention almost exclusively to the milkmaid by Greuze, and to the engraving of it by Jean Patricot.

The Gardens at Versailles.—Time has spared but few of the artificial gardens with which Louis XIV adorned his park at Versailles. Those which were known as the Trois Fontaines, l'Arc de Triomphe, l'Île Royale, la Girandole, la Galerie d'eau, la Montagne d'eau, as well as others, have vanished. However, paintings, engravings, and drawings exist by means of which some of these may be restored to view. To present a picture of those vanished gardens is the object of three articles by Pierre de Nolhac in the *Gaz. B.-A.* 1899, p. 265; 1900, pp. 39-54, 263-292.

BELGIUM

A Painting in the Museum at Ghent.—In the museum at Ghent is a painting labelled, "Unknown, sixteenth century," representing the woman taken in adultery. L. Maeterlinck, in the *Chron. d. Arts*, 1900, pp. 162-163, suggests that this is the painting mentioned by Carl van Mander as the work of Lievin de Witte, 1513-1578.

An Unknown Work by Jerome Bosch.—The authenticated works of Jerome Bosch are so rare that new examples of his paintings are especially welcome. L. Maeterlinck, in a brief article in the *Gaz. B.-A.* 1900, pp. 68-74, publishes an *Ecce Homo*, on exhibition in the museum at Ghent. This painting has been attributed to Henri de Bles by no less an authority than H. Hymans, but as Maeterlinck has pointed out it is thoroughly in the style of Jerome Bosch. It is unsigned, but is analogous to a signed work by Bosch in the museum at Vienna, representing the crucifixion of S. Julia.

Jan and Hubert van Eyck.—A comprehensive study of the literary traditions concerning the brothers Van Eyck is found in an article by Carl Voll in the *Rep. f. K.* 1900, pp. 92-122, entitled, 'Altes und Neues über die Brüder Eyck.' Five of these literary notices are from the fifteenth century, and a dozen or more from the sixteenth century. The earliest notices are Flemish and not, as is generally supposed, Italian.

HOLLAND

Book Illustration by Lucas van Leyden.—The article published by Franz Dülberg in the *Rep. f. K.* 1898, pp. 36 ff., on Lucas van Leyden as an illustrator, has inspired Campbell Dodgson to draw up a catalogue of the

book illustrations of Lucas van Leyden, which he has published under the title, 'Beschreibendes Verzeichniss der Buchillustrationen Lucas van Leyden,' in the *Rep. f. K.* 1900, pp. 143-154.

GERMANY

Rhenish Paintings of the Fifteenth Century.—In the *Jb. Preuss. Kunsts.* 1900, pp. 59-74, Henry Thode writes on 'Die Malerei am Mittelrhein in XV Jahrhundert und der Meister der Darmstädter Passionscenen.' The basis of the article, of which this is the first part, is found in two paintings (Nos. 171, 172) in the gallery at Darmstadt, representing Christ bearing the Cross and Christ crucified. These paintings are seen to be the work of a German who was trained in Flanders, and yet who shows an individuality which distinguishes him from his contemporaries, Lukas Moser of Swabia, Stephan Lochner of Cologne, Pfenning of Nuremberg, and Konrad Witz of Basel. The region from which he comes seems to be that of the middle Rhine—from Mainz, Aschaffenburg, or Frankfort. The names of many painters from this region may be mentioned, though their works are yet unknown. To this Rhenish master may be assigned four paintings in the Berlin Museum (Nos. 1205, 1206). To this school may be assigned the altar-pieces from Friedberg, Ostenberg, and Seligenstadt in the gallery at Darmstadt, and the painting known as 'Kalvarienberg' in the museum at Frankfort.

Holbein's Work for the Publishers of Basel.—In the *Jb. Preuss. Kunsts.* 1899, pp. 233-262, Heinrich Alfred Schmid publishes the results of very careful researches on the activity of Holbein in Basel in the years 1516, 1519-1526, and 1529-1531. This work consisted of designs for woodcuts, alphabets, marginal decorations, and other such book ornamentation. This phase of Holbein's work, inadequately treated by Woltmann, is important as furnishing some twelve hundred examples of his early designs, many of which can be accurately dated.

Friedrich Pacher.—Friedrich Pacher was a Tyrolese artist of the fifteenth and early sixteenth centuries who worked in the Gothic manner, not yielding to the influence of Italian methods. It is not always easy to distinguish his work from that of Michael Pacher. An attempt to gather documentary evidence concerning Friedrich Pacher is made by Robert Stiassny in the *Rep. f. K.* 1900, pp. 38-47.

The Block Work Ars Moriendi.—Against the Flemish origin of these woodcuts is the opinion of Ludwig Kaemmerer, in *Zeitschr. f. Bücherfreunde*, 1899, pp. 225 ff. So also that of Max Lehrs, who writes, in the *Rep. f. K.* 1899, pp. 458-471, an article entitled 'Noch Einmal die Ars Moriendi,' in which he tries to prove that the origin of all the woodcuts of the Ars Moriendi is to be found in the eleven copperplate engravings by the master E. S. now preserved in Oxford. This has aroused August Schmarsow again to defend the Flemish origin of the compositions of the woodcuts in an article entitled 'Ist der Bildercyklus "Ars Moriendi" deutschen oder niederländischen Ursprungs?' in the *Rep. f. K.* 1900, pp. 123-142.



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